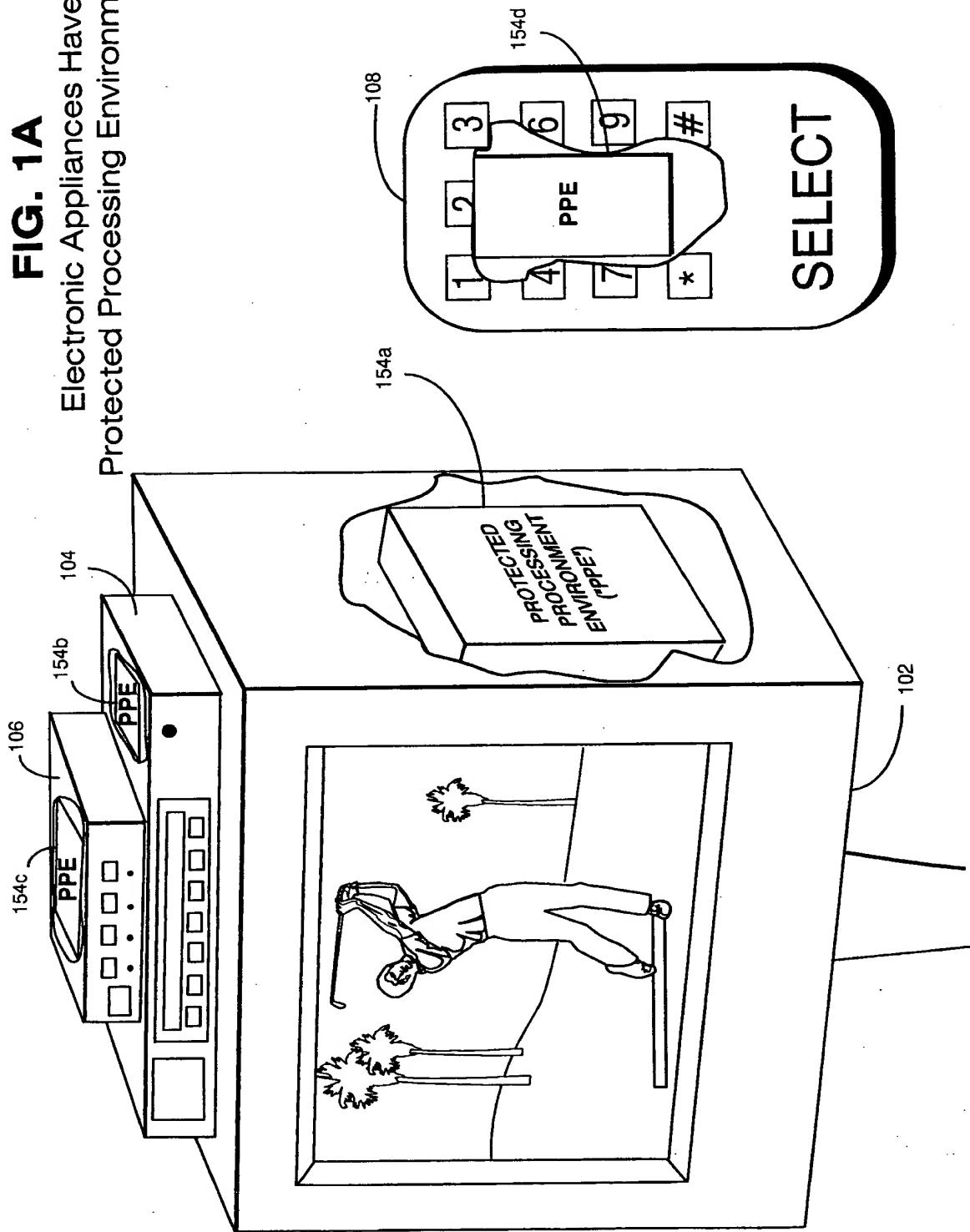
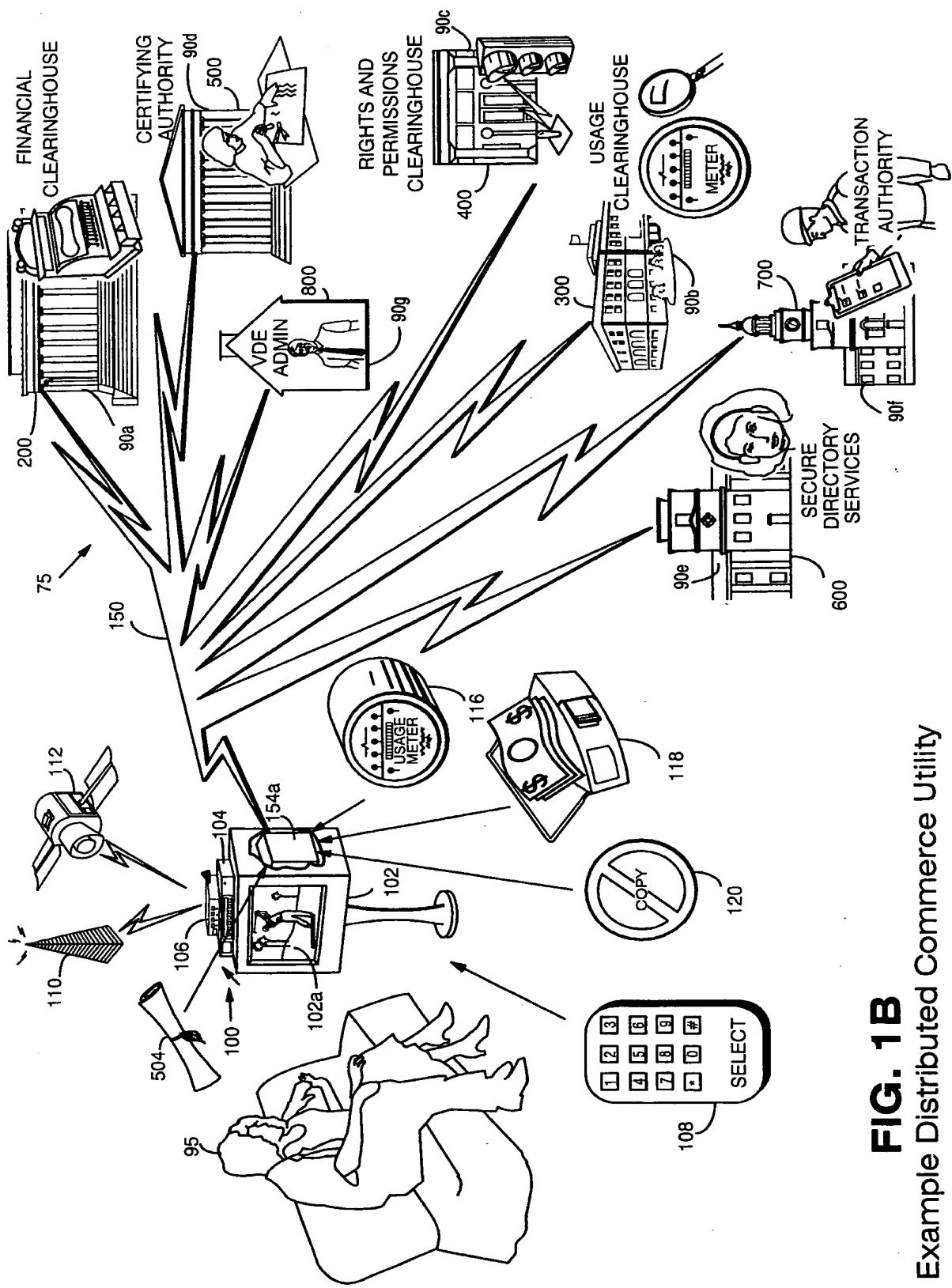


**FIG. 1**

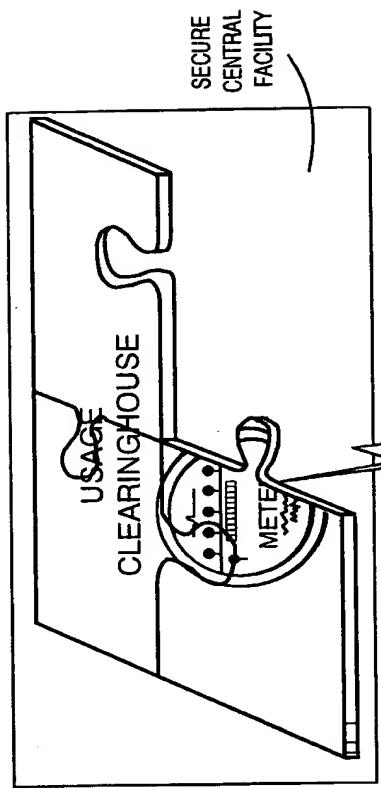
**FIG. 1A**  
Electronic Appliances Have  
Protected Processing Environments



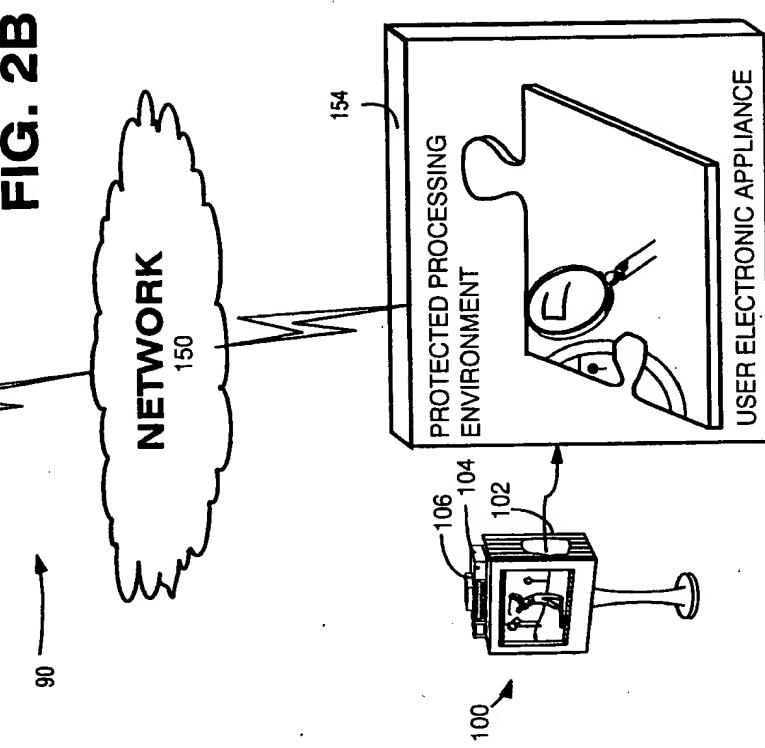
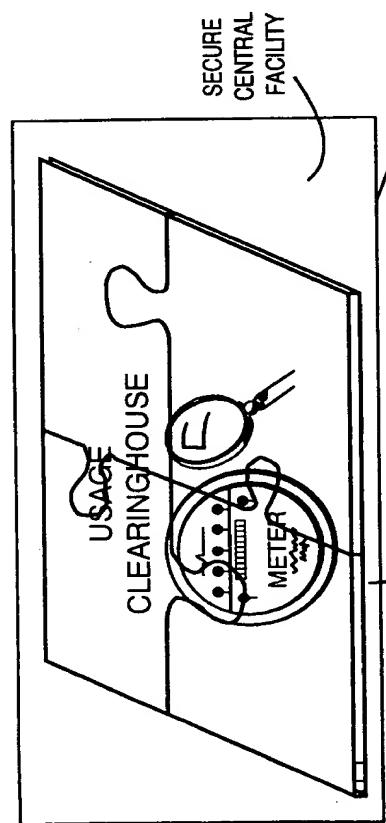


**FIG. 1B** Example Distributed Commerce Utility

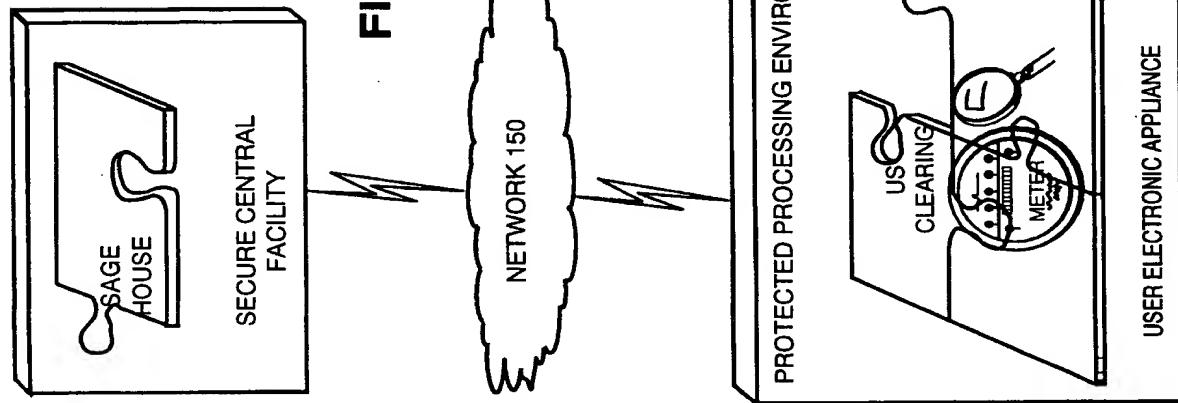
**FIG. 2B**



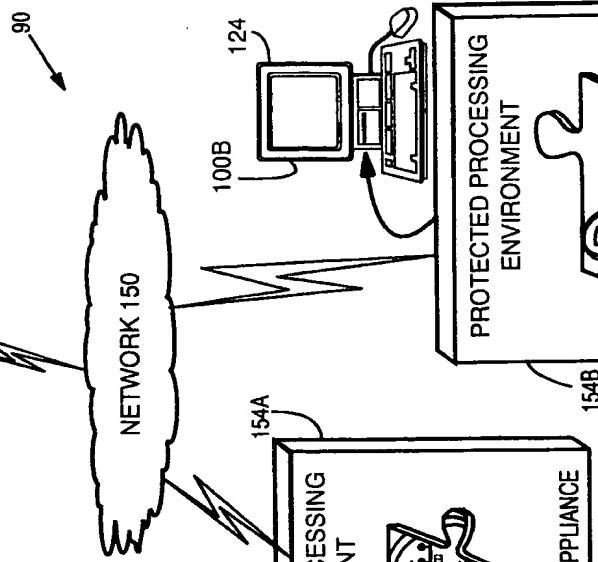
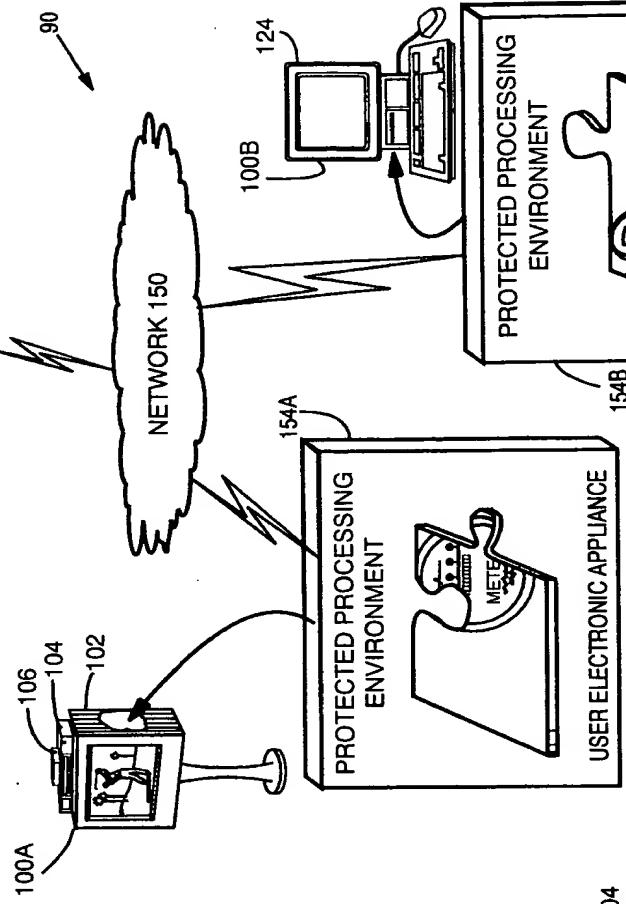
**FIG. 2A**



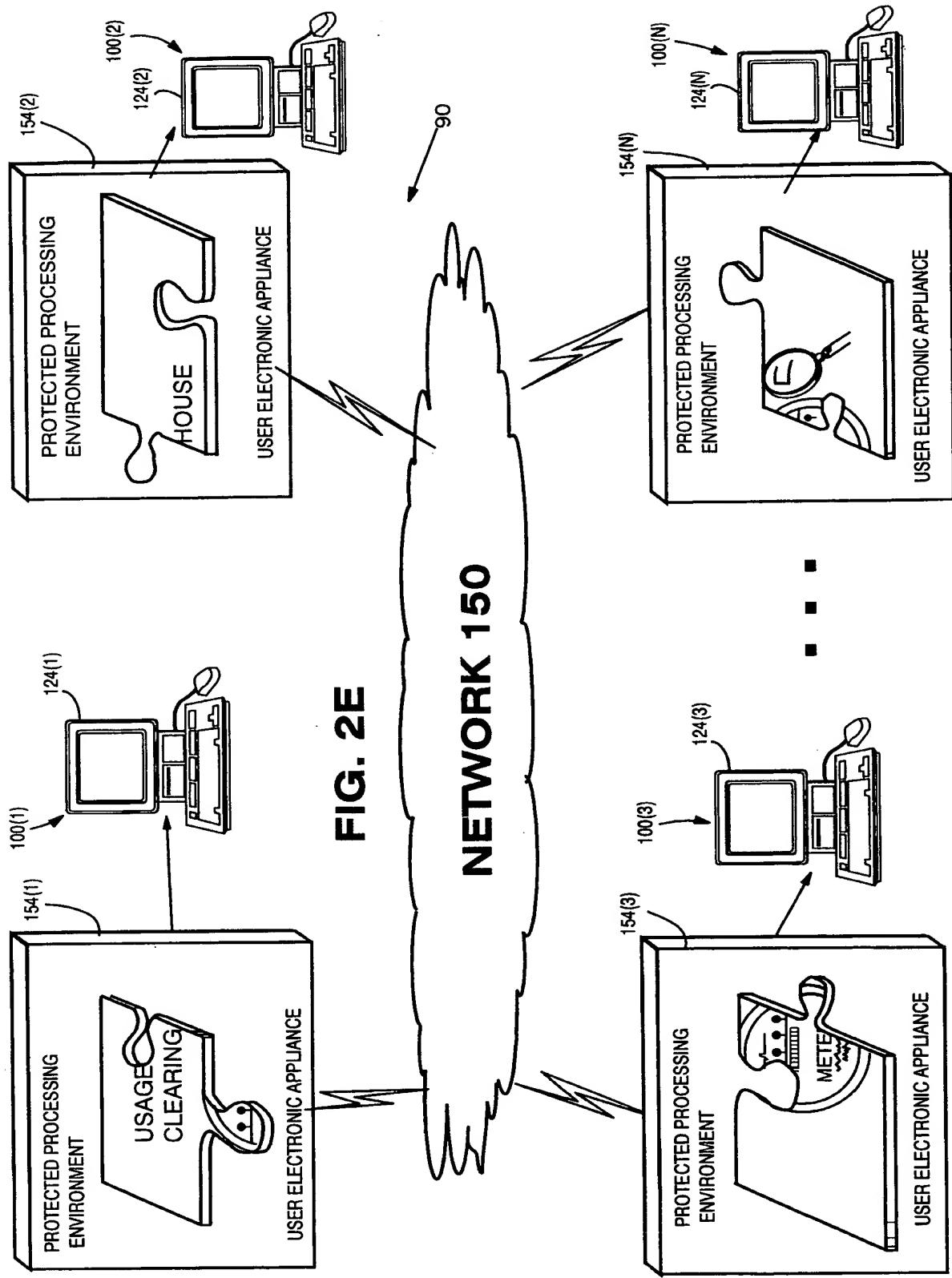
**FIG. 2C**



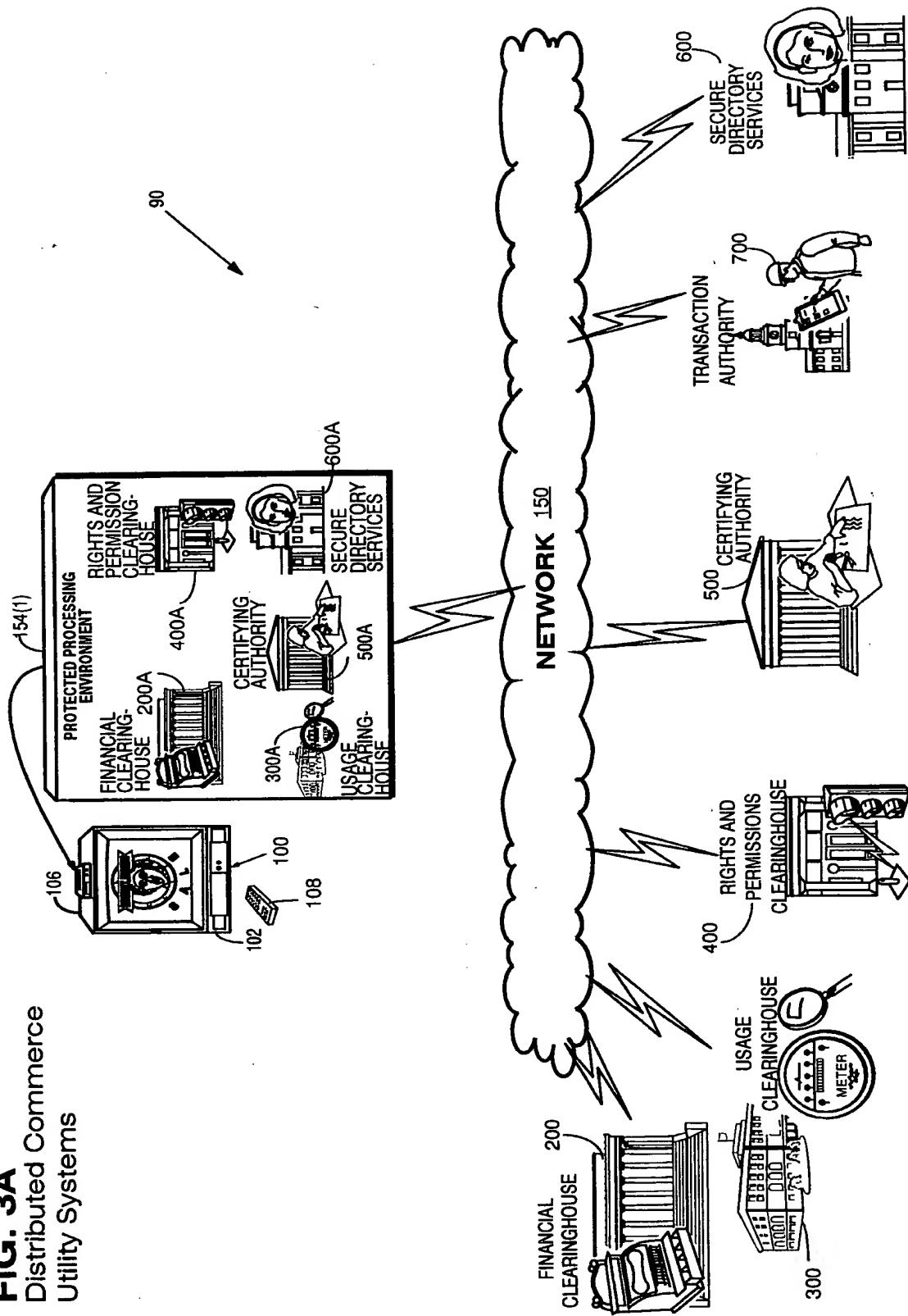
100A  
106  
102



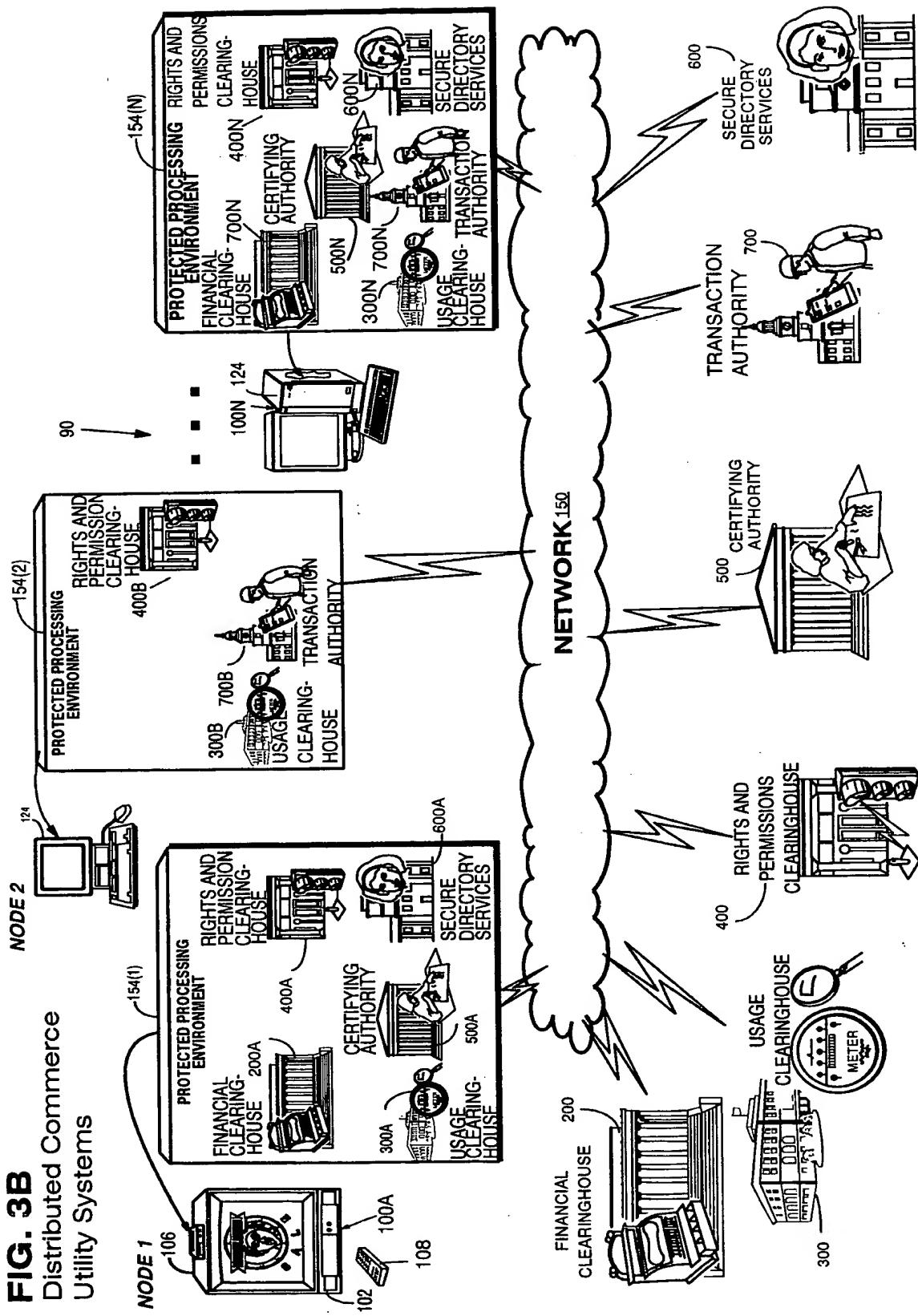
**FIG. 2D**



**FIG. 3A**  
Distributed Commerce  
Utility Systems

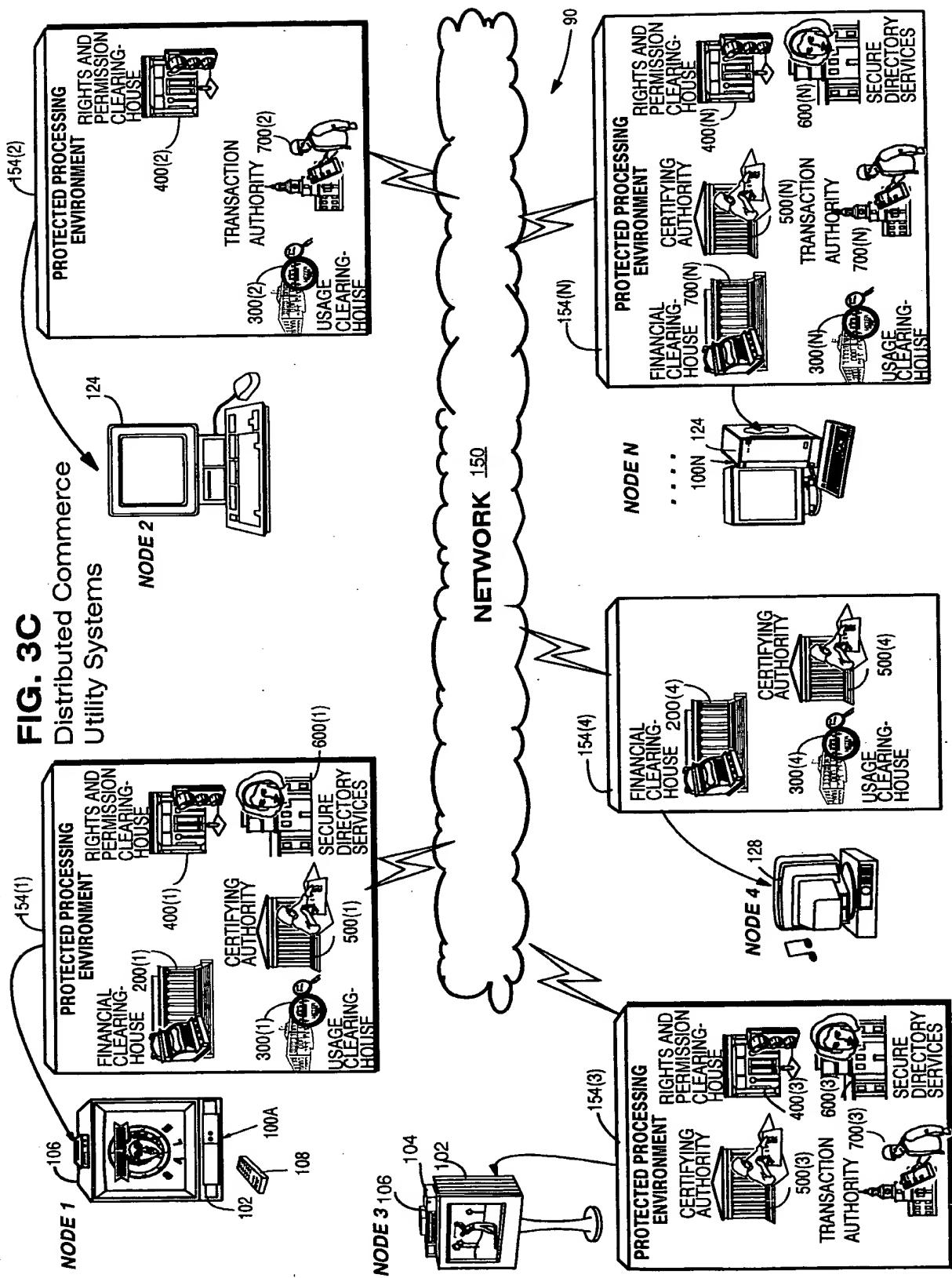


**FIG. 3B**  
Distributed Commerce  
Utility Systems

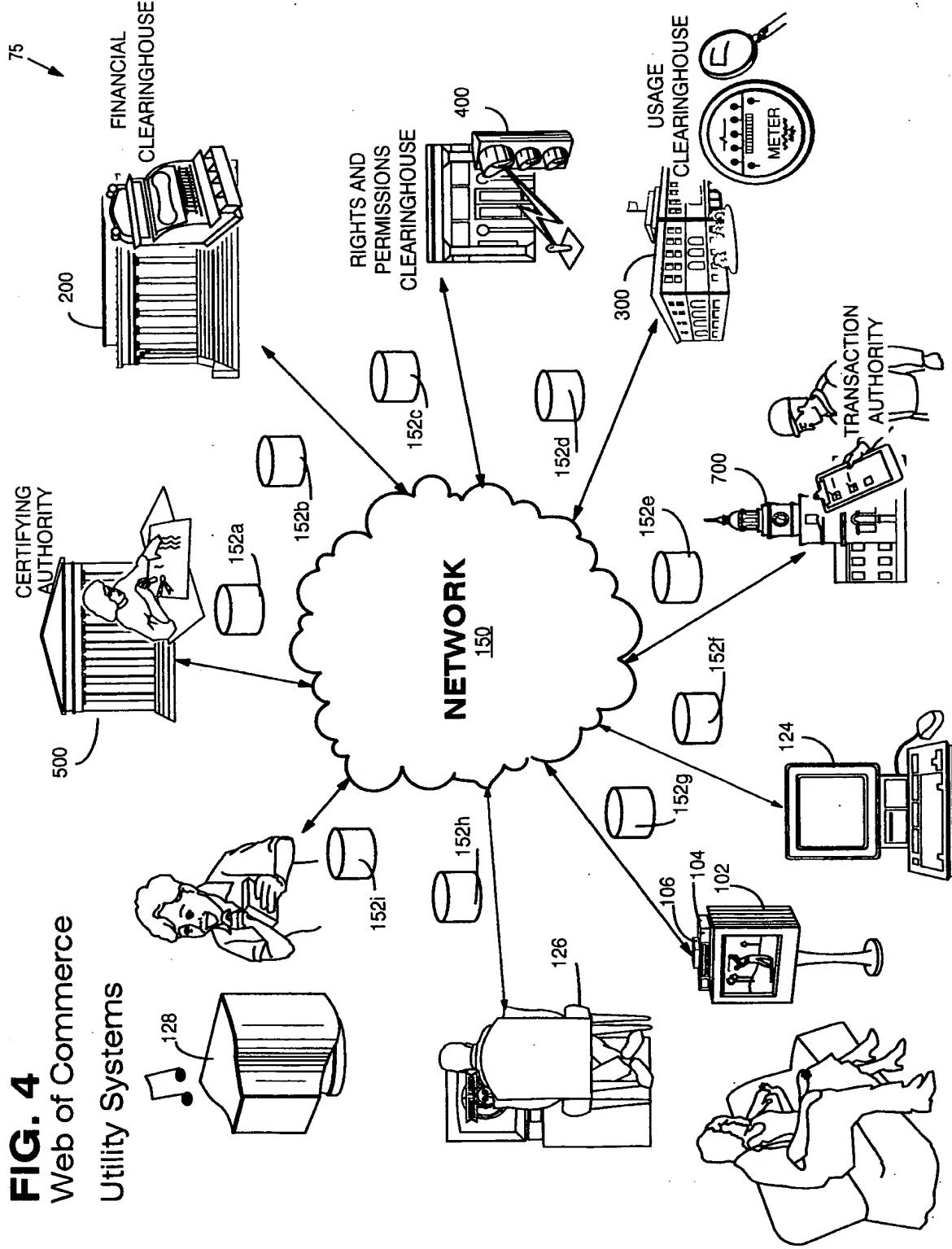


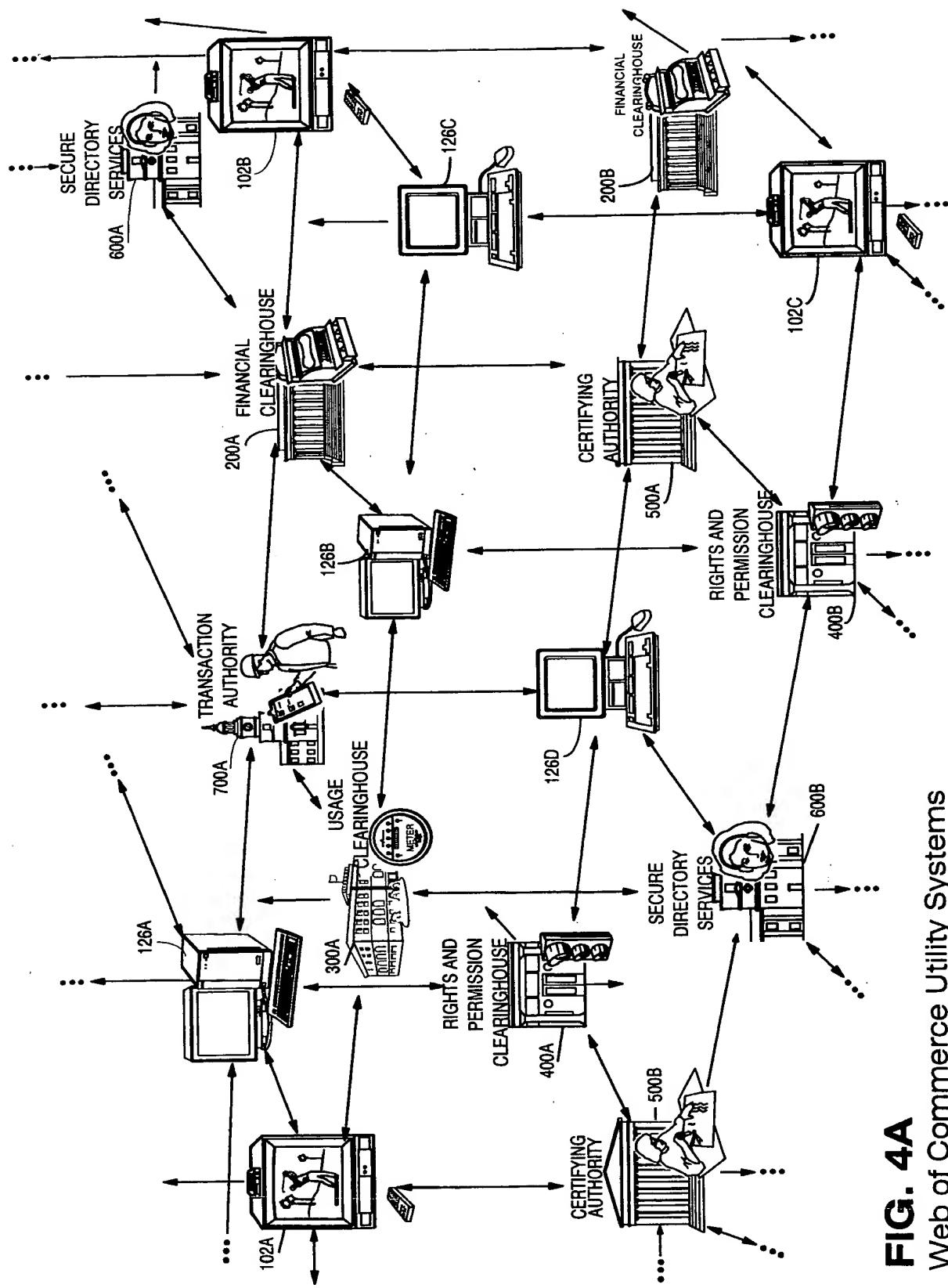
**FIG. 3C**

Distributed Commerce  
Utility Systems

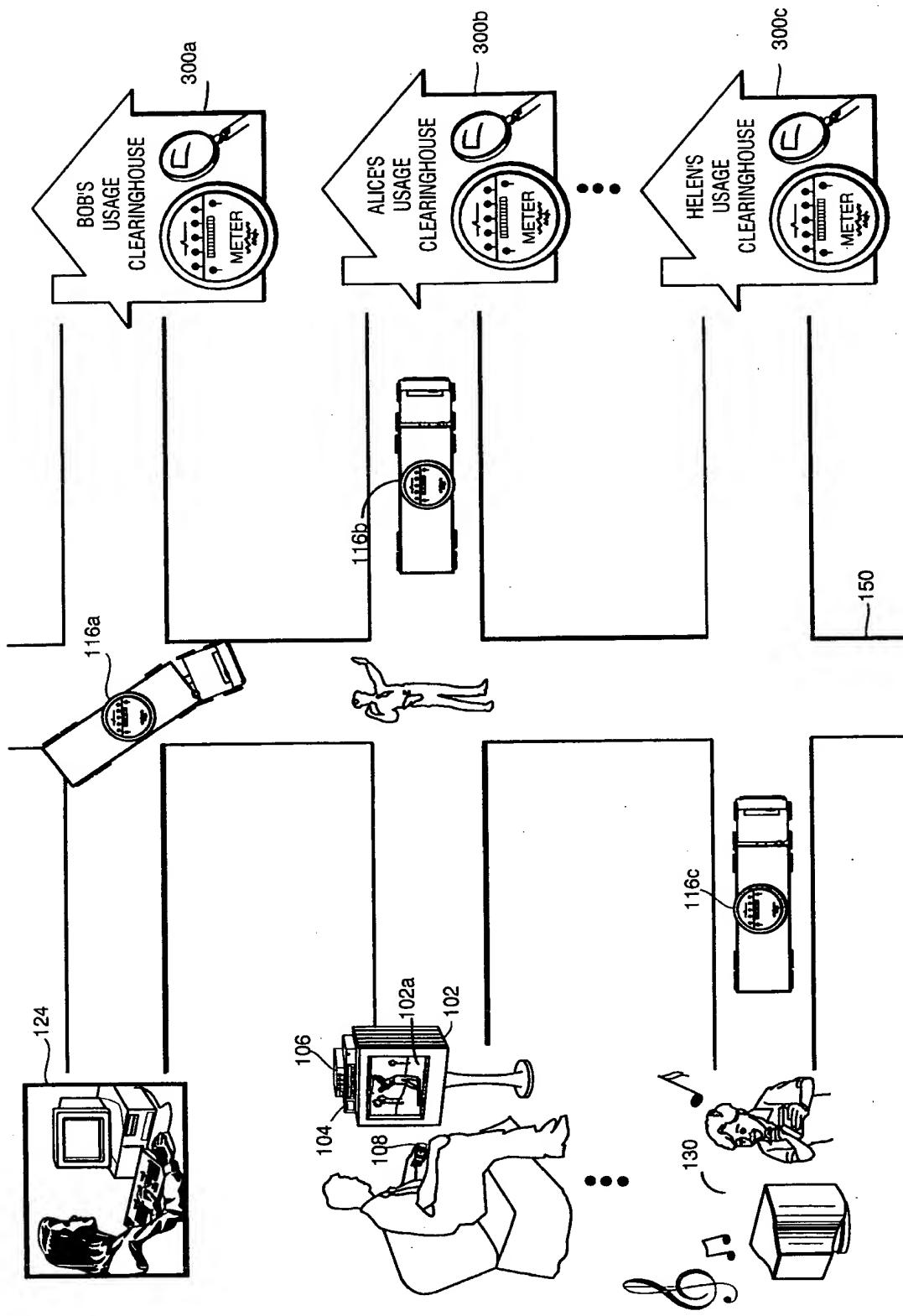


**FIG. 4**  
Web of Commerce  
Utility Systems



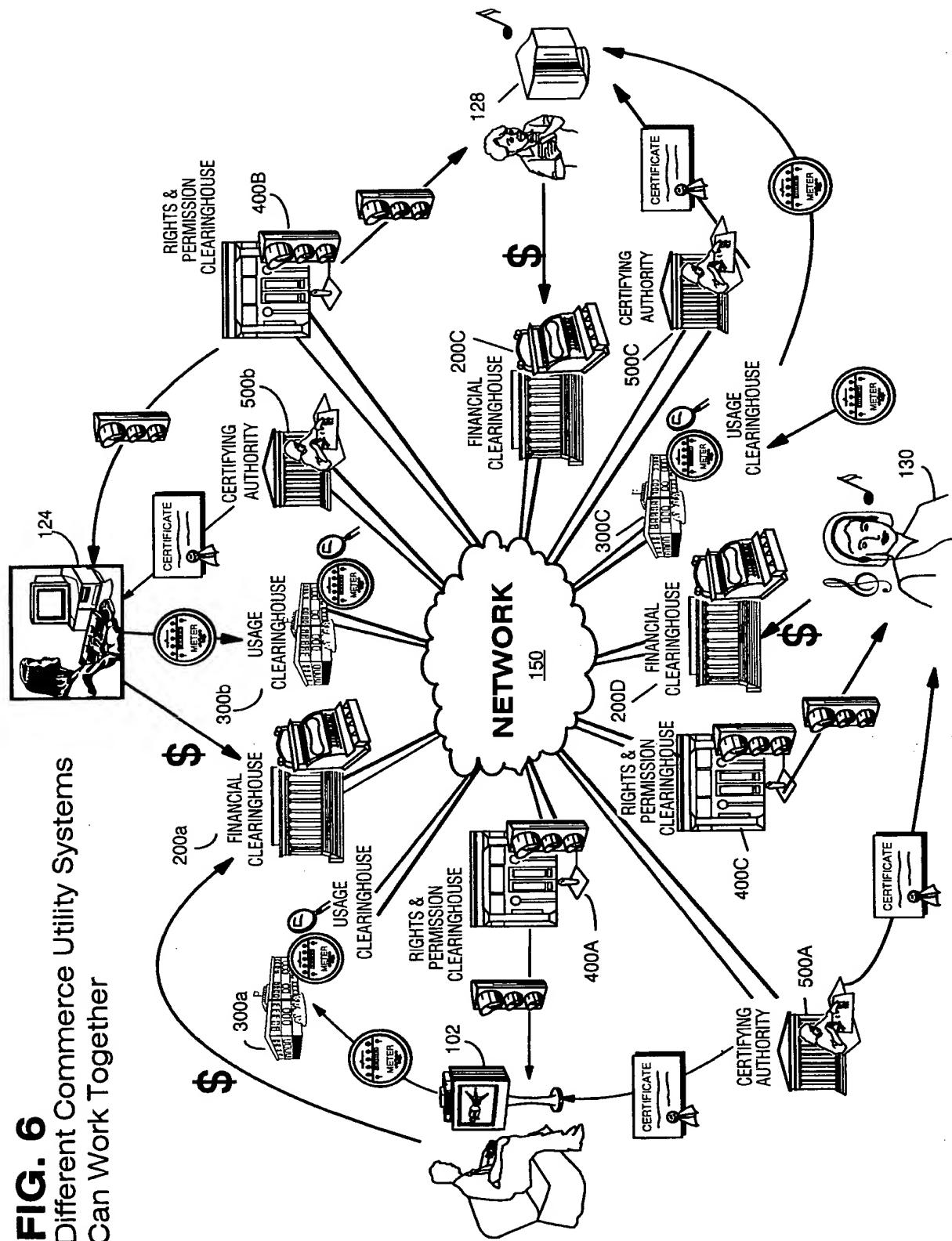


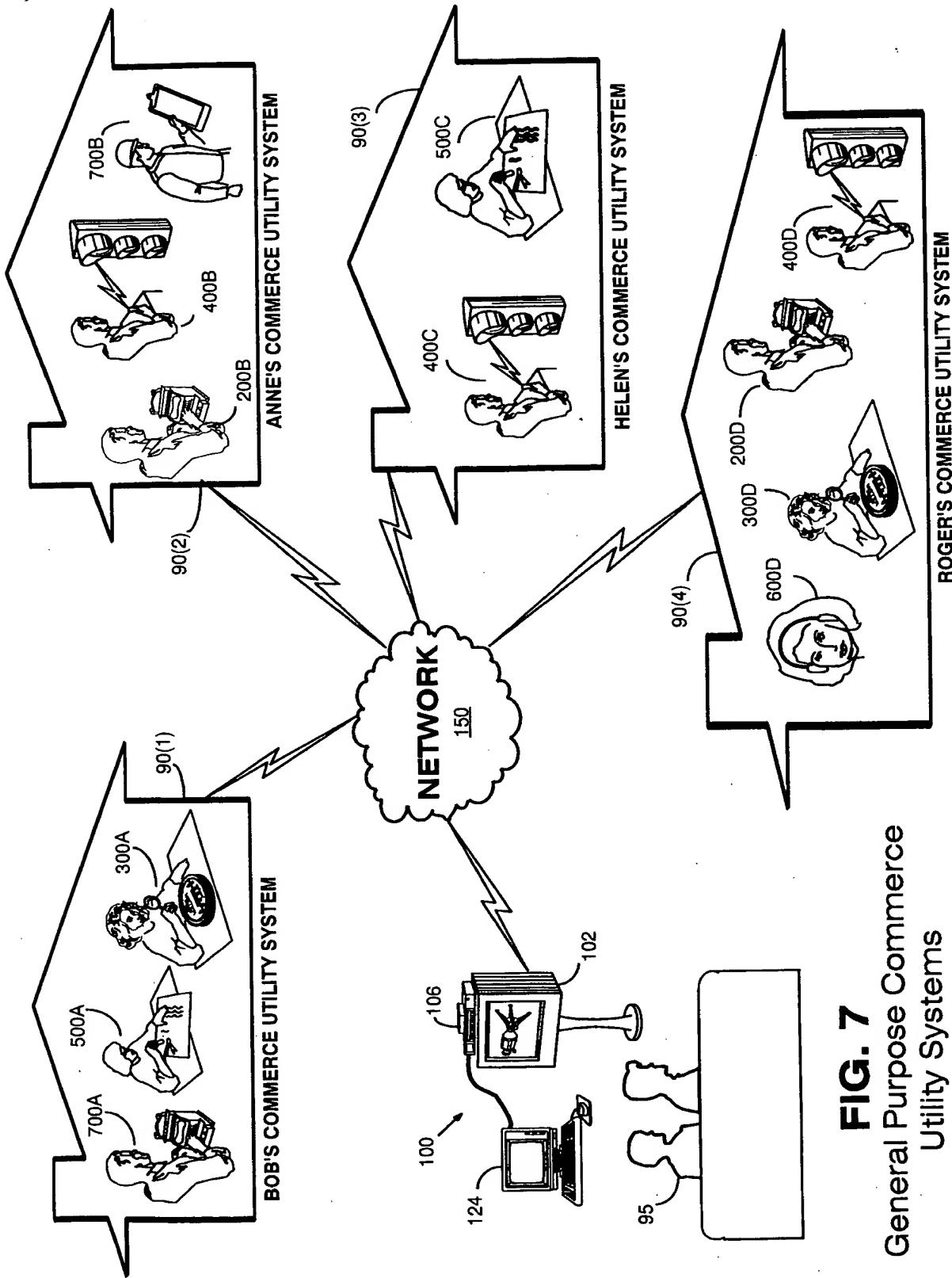
**FIG. 4A**  
Web of Commerce Utility Systems



**FIG. 5**  
Rights Holders Can Choose Between Commerce Utility Systems

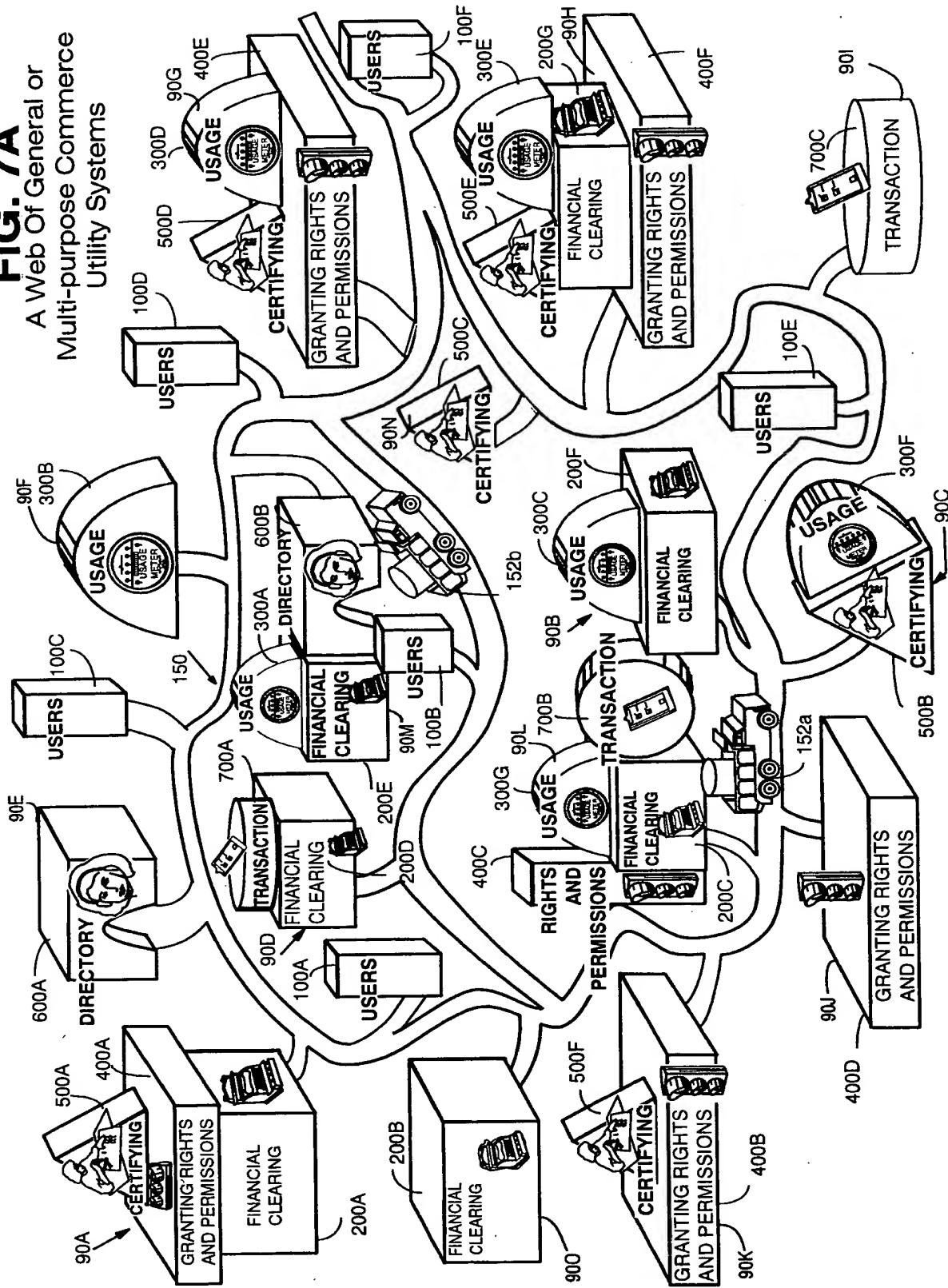
**FIG. 6**  
Different Commerce Utility Systems  
Can Work Together





**FIG. 7**  
General Purpose Commerce  
Utility Systems

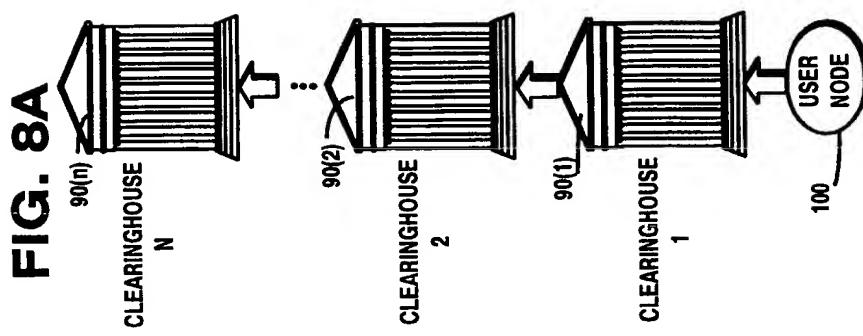
**FIG. 7A** A Web Of General or Multi-purpose Commerce Utility Systems



**FIG. 8A**

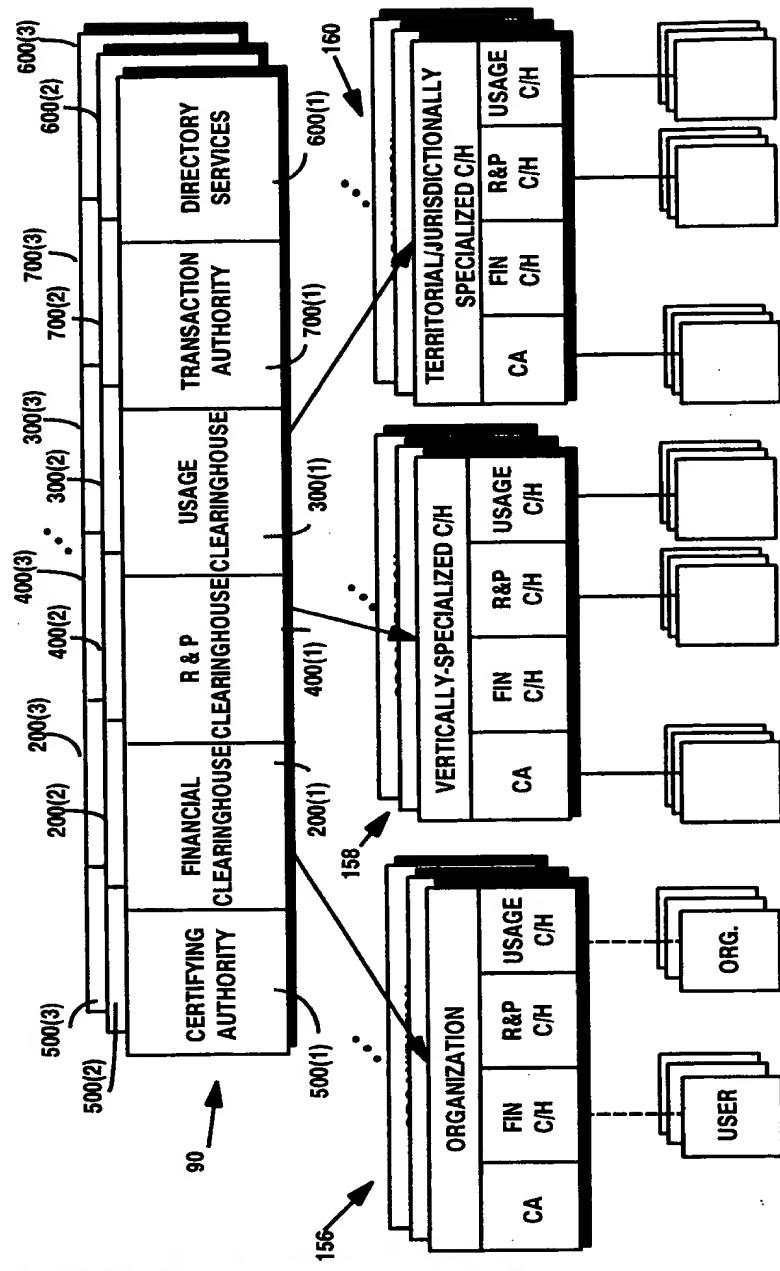
90(m)

CLEARINGHOUSE



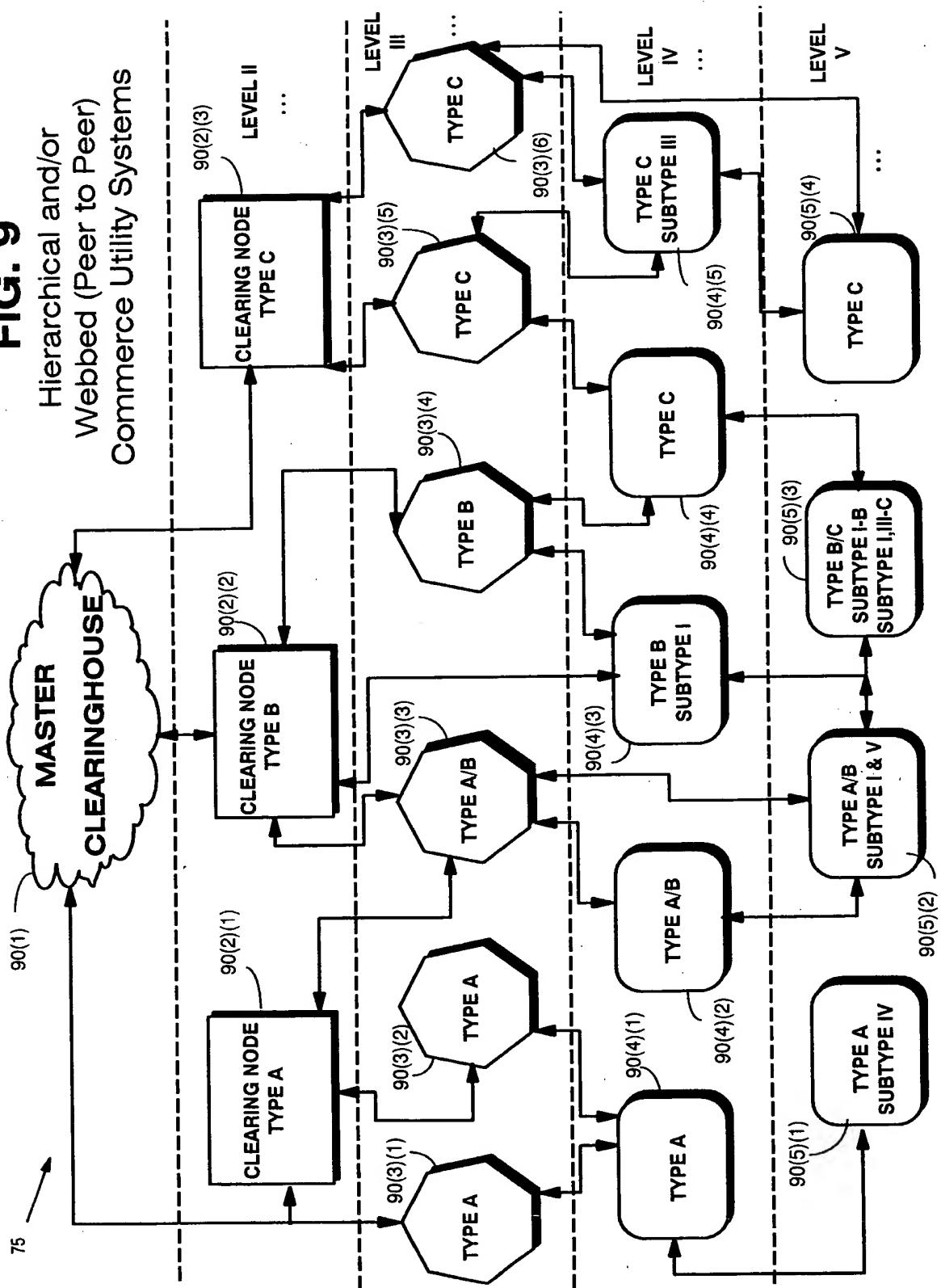
## **FIG. 8B**

### Hierarchy Of Commerce Utility Systems

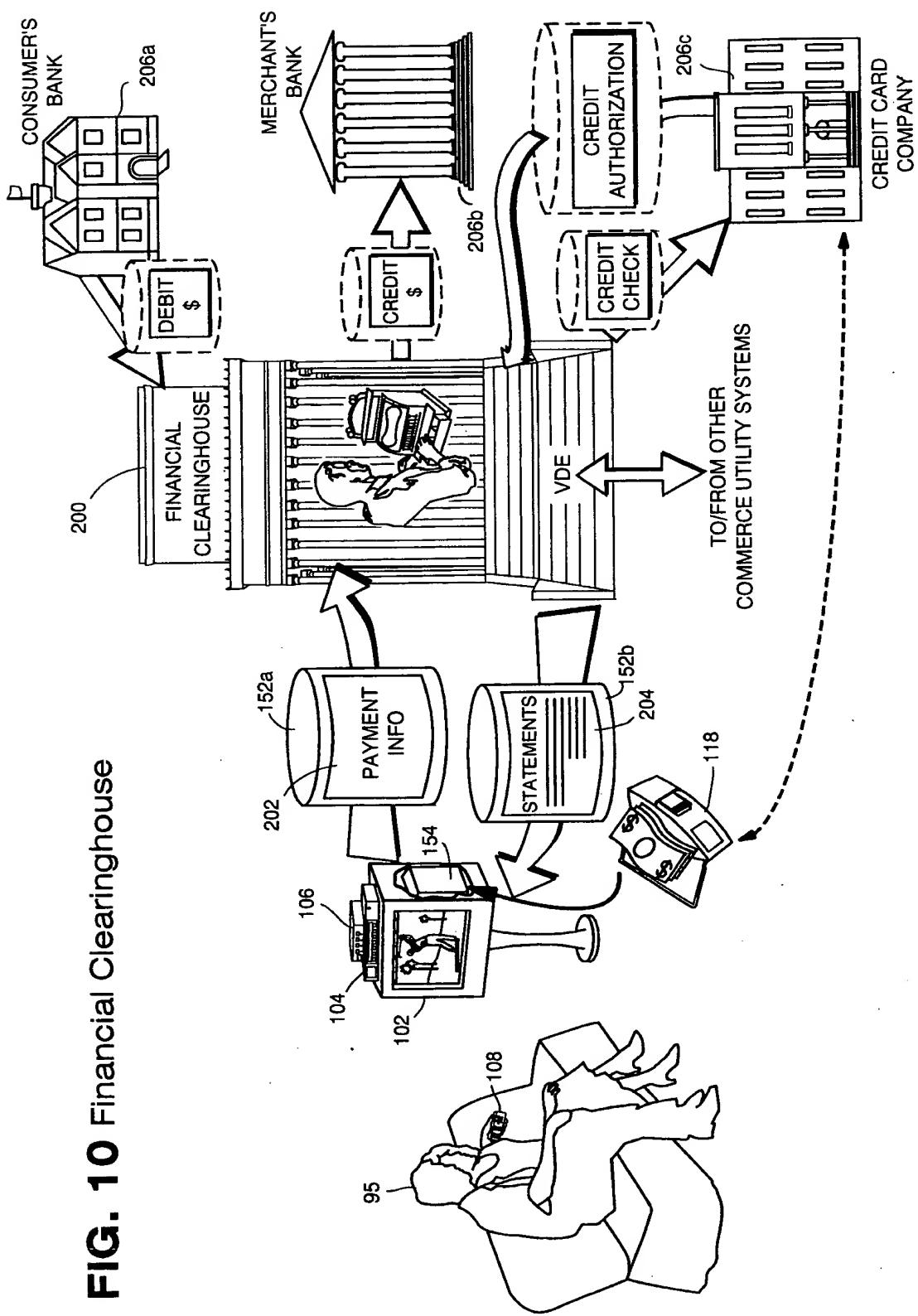


**FIG. 9**

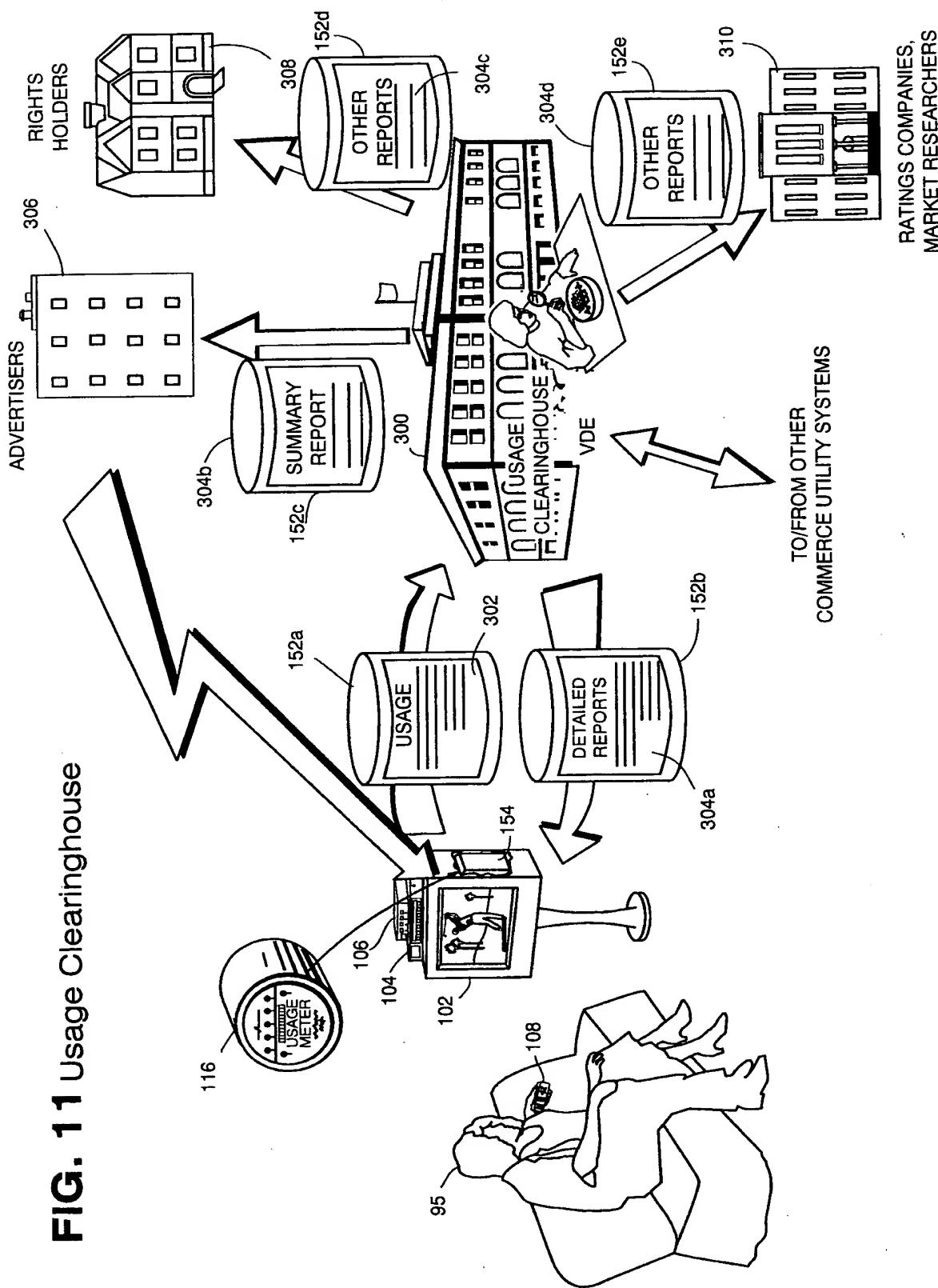
Hierarchical and/or  
Webbed (Peer to Peer)  
Commerce Utility Systems



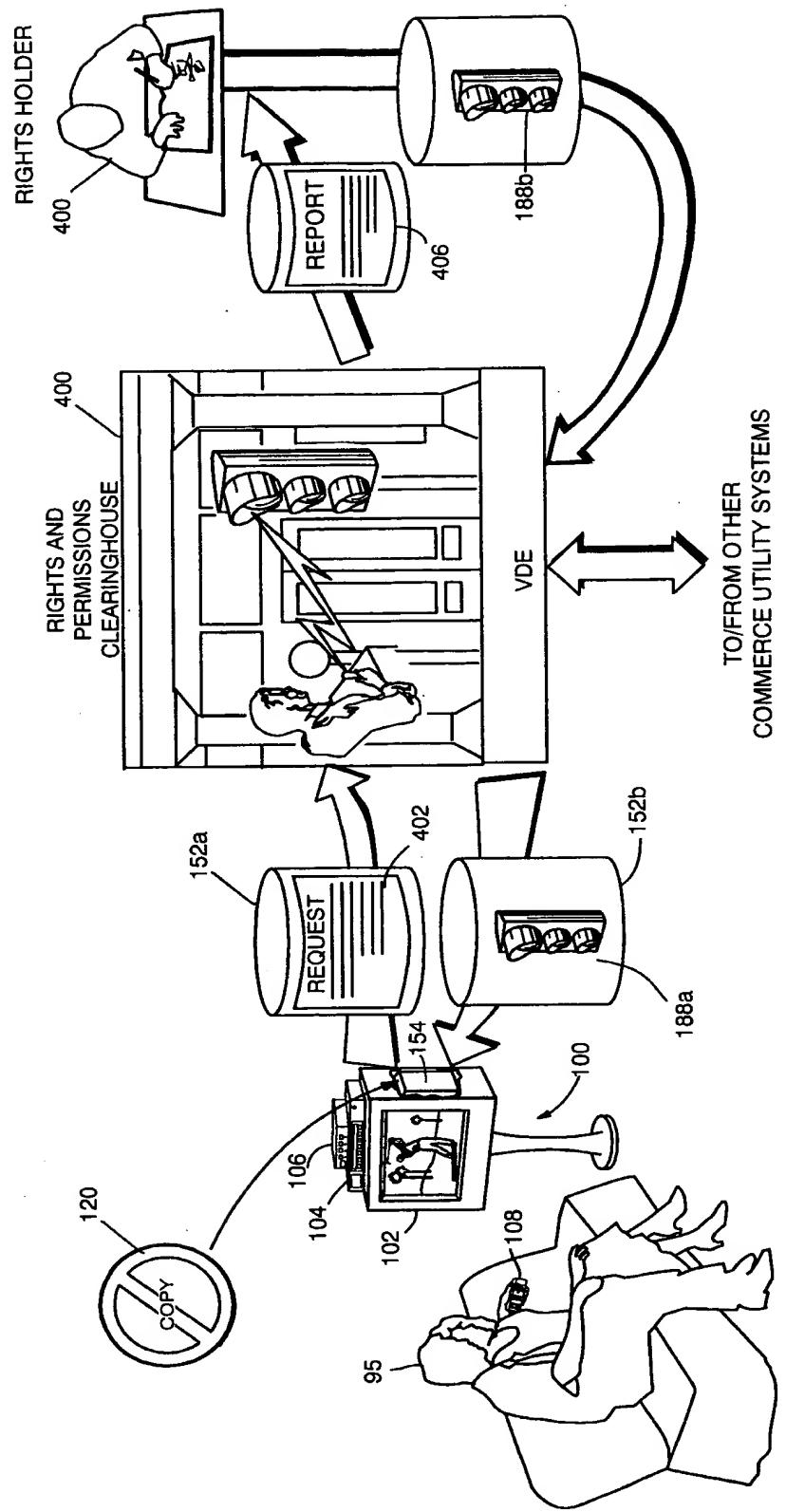
**FIG. 10** Financial Clearinghouse



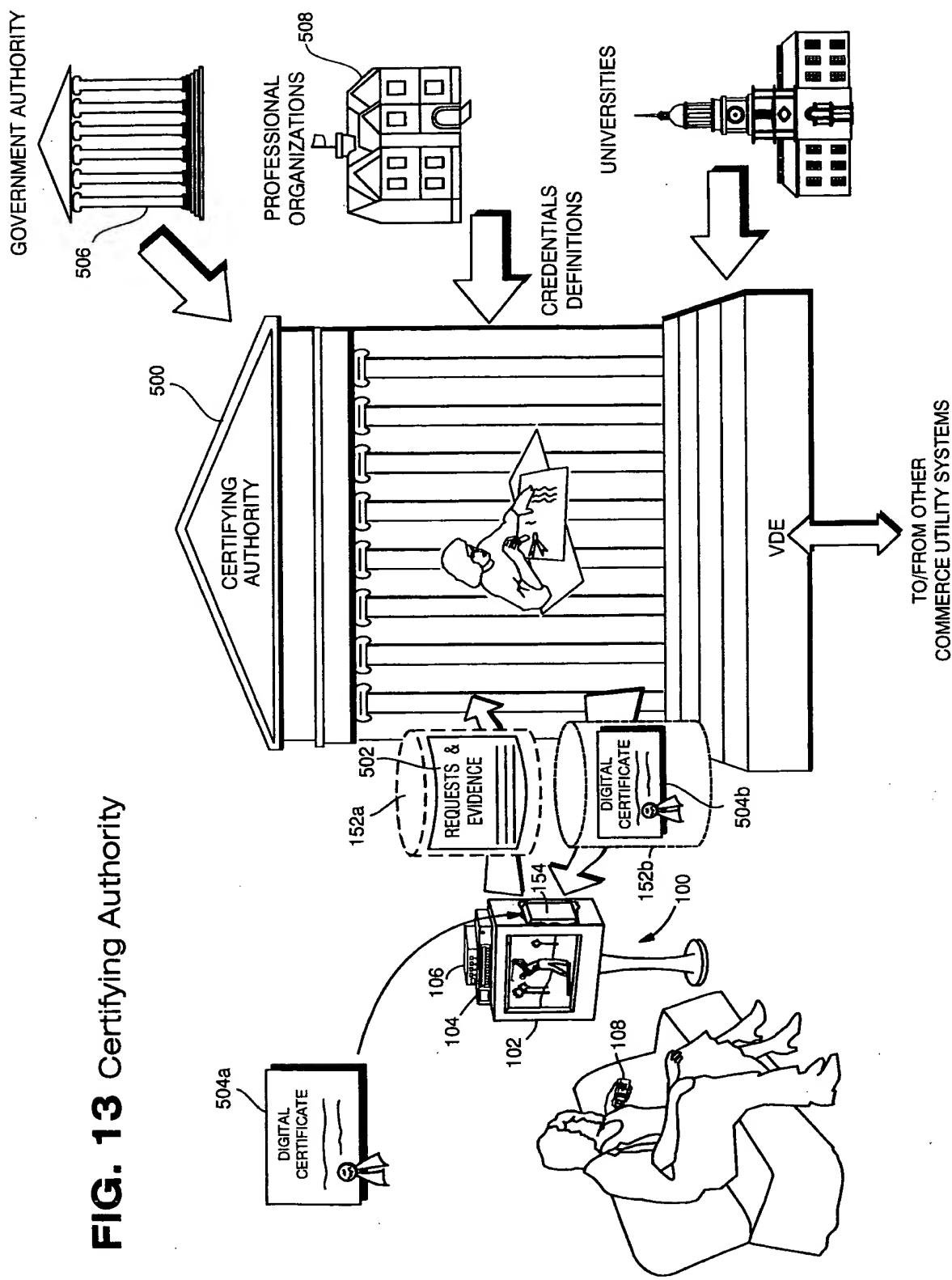
**FIG. 11** Usage Clearinghouse



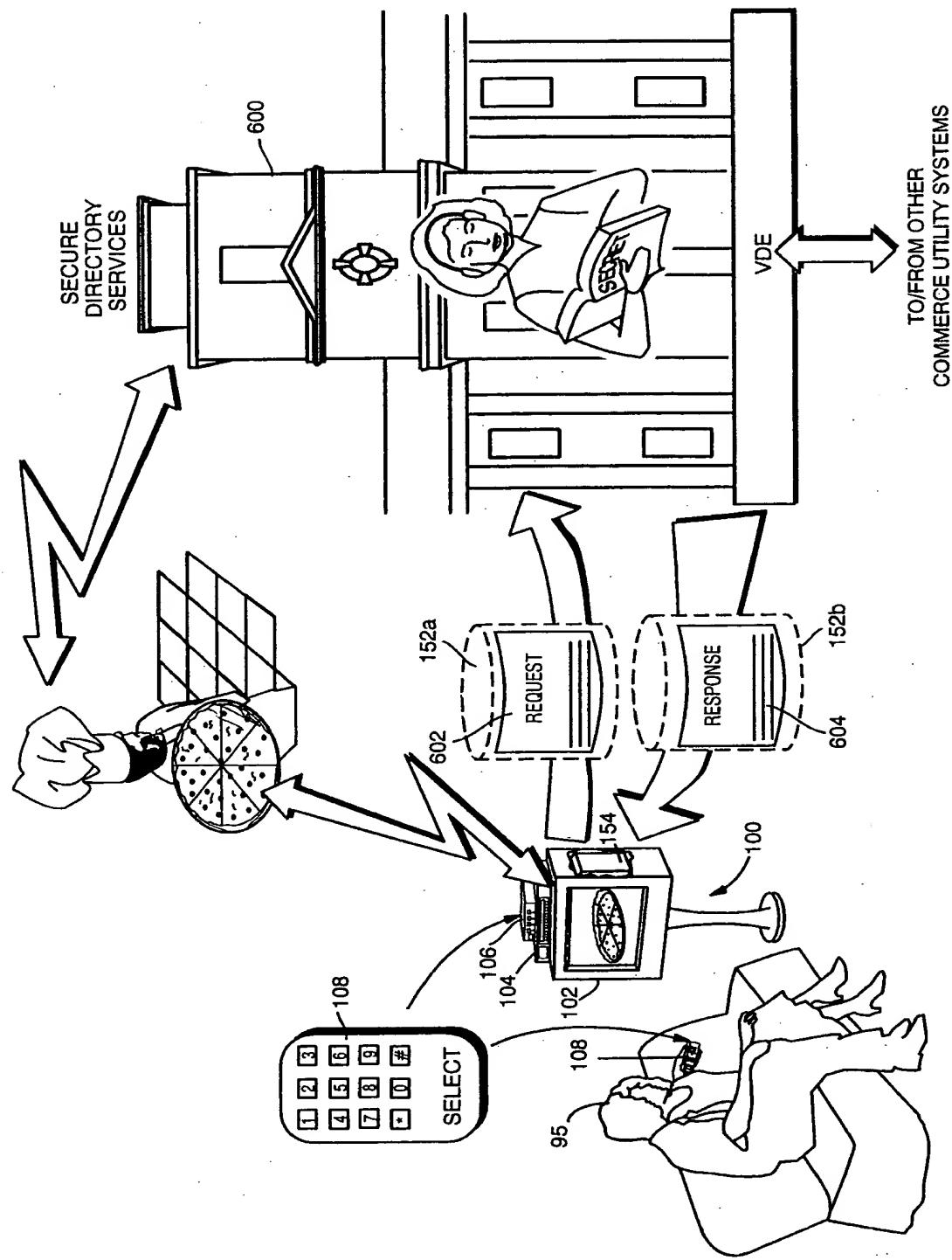
**FIG. 12** Rights and Permissions Clearinghouse



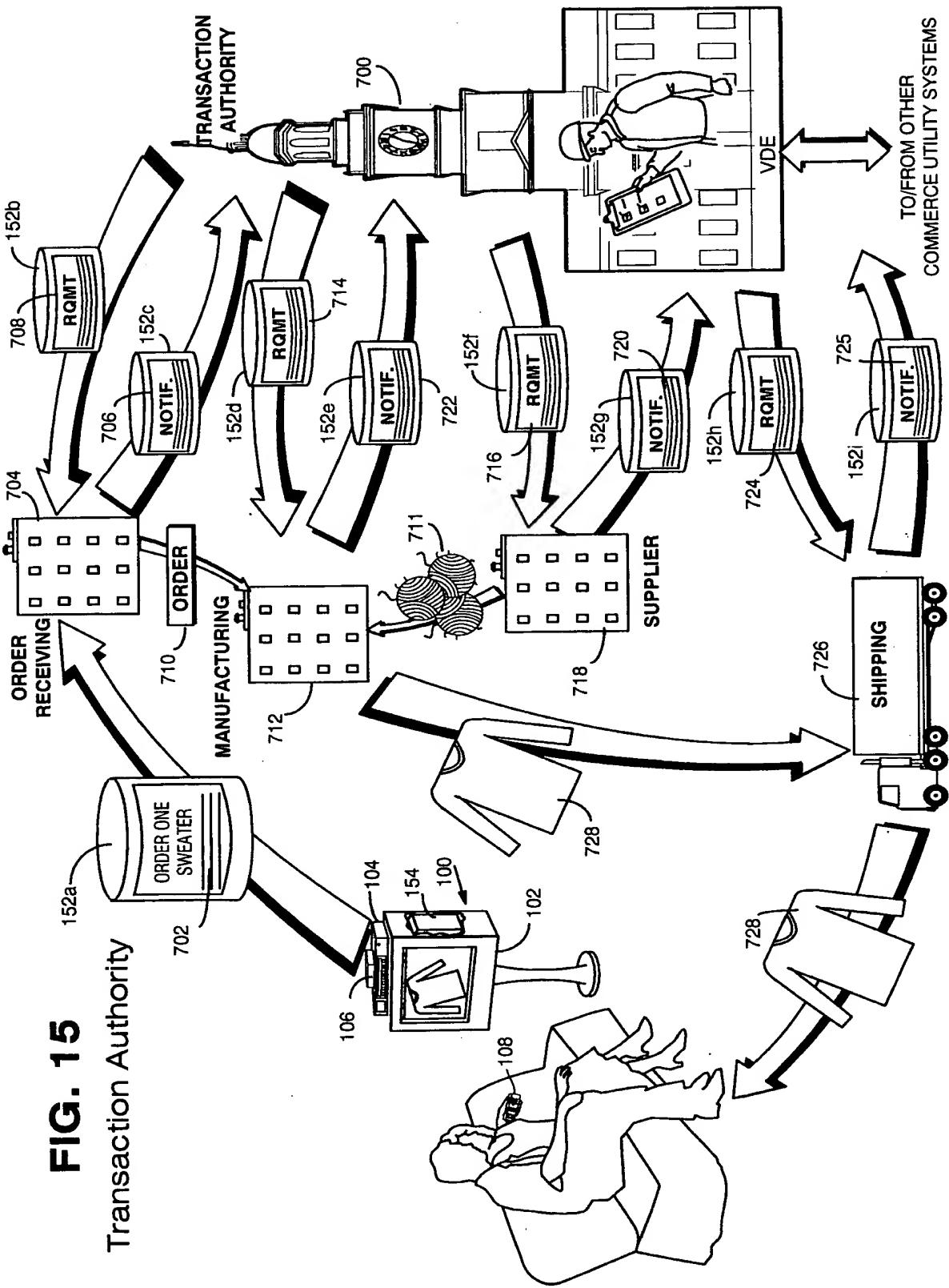
**FIG. 13** Certifying Authority

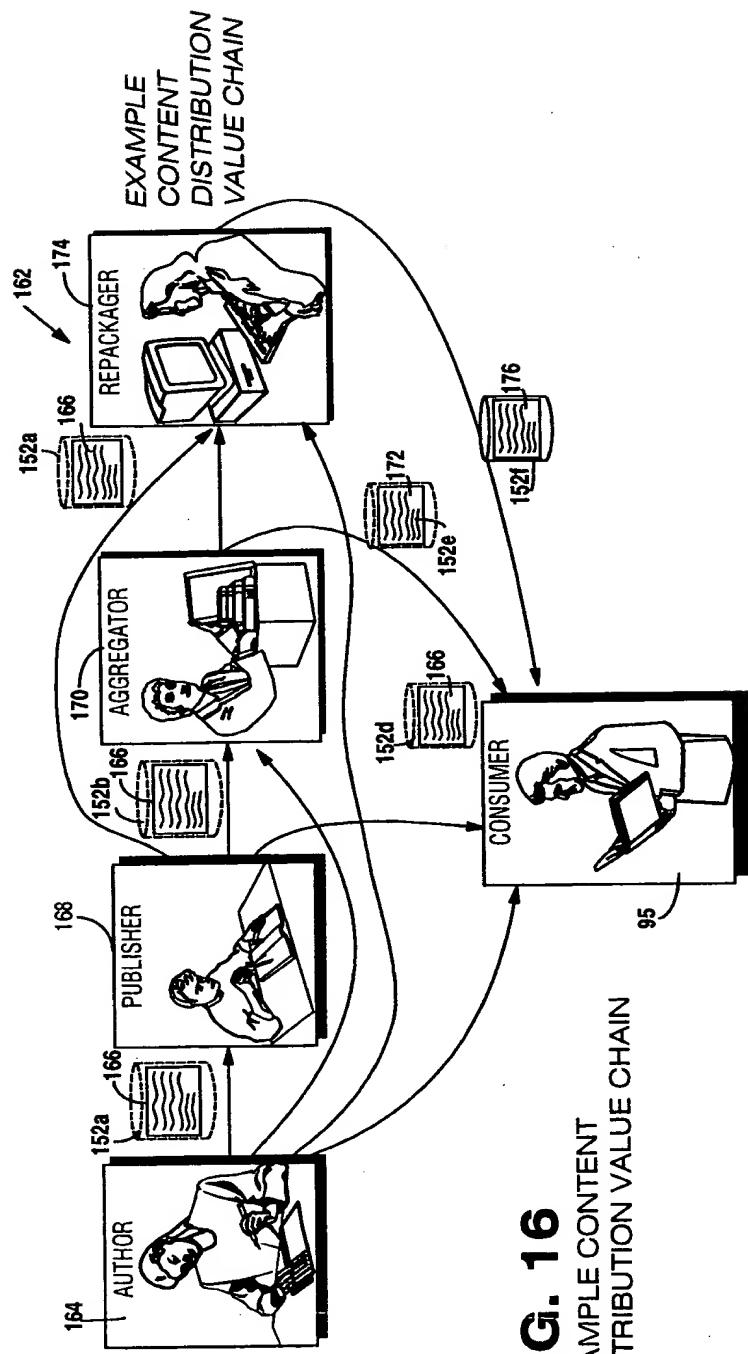


**FIG. 14** Secure Directory Services

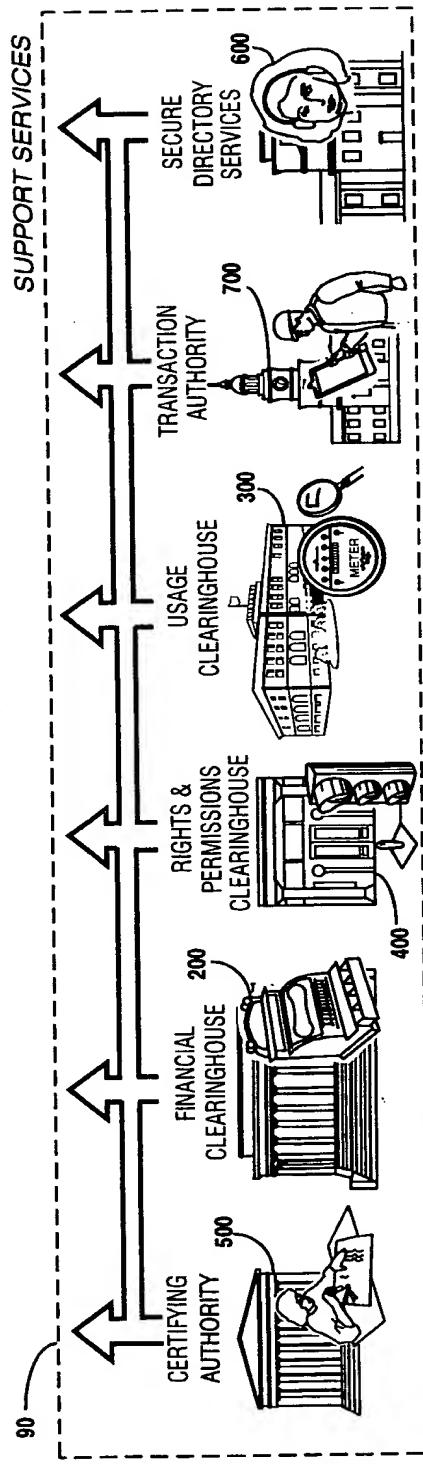


**FIG. 15**  
Transaction Authority

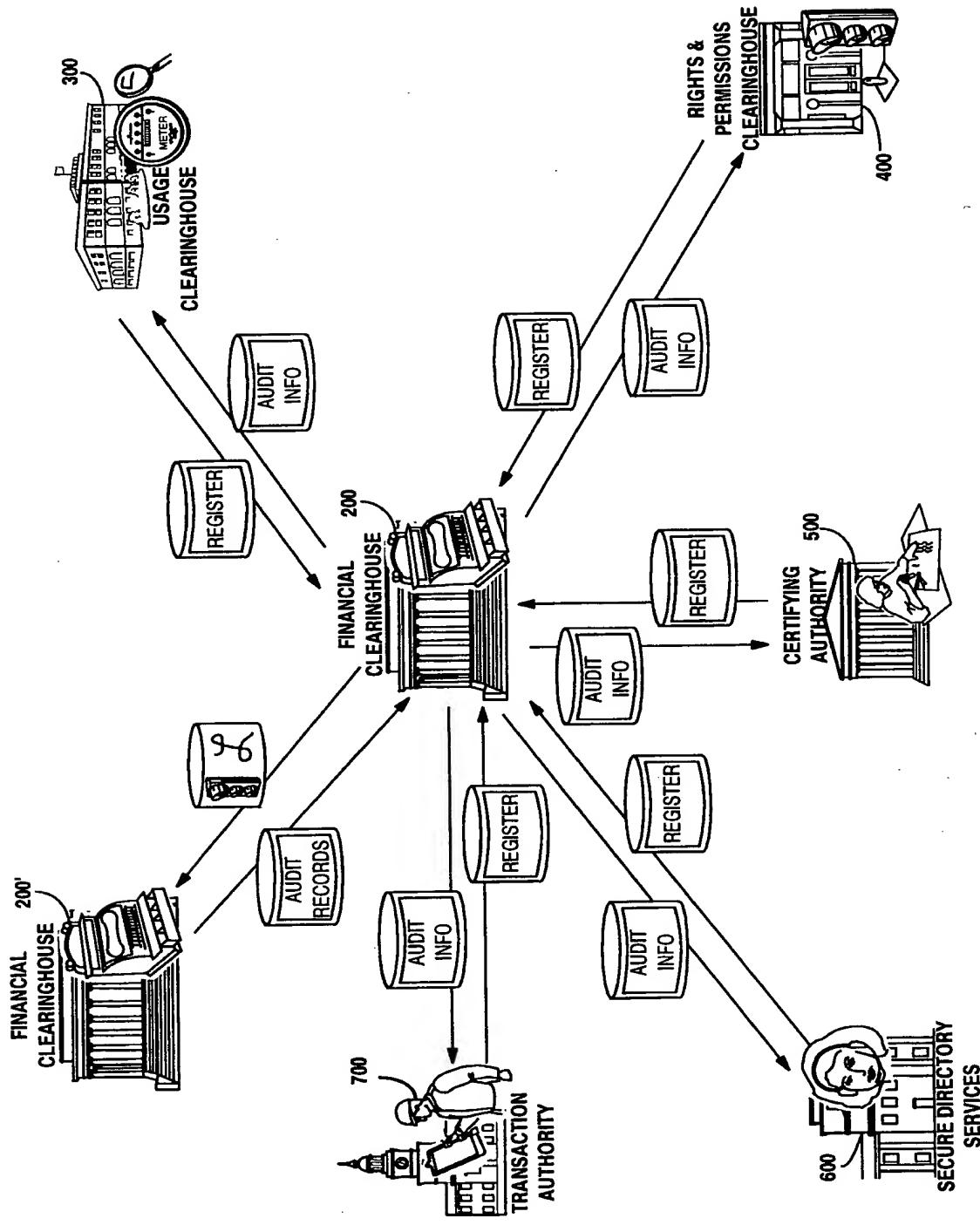




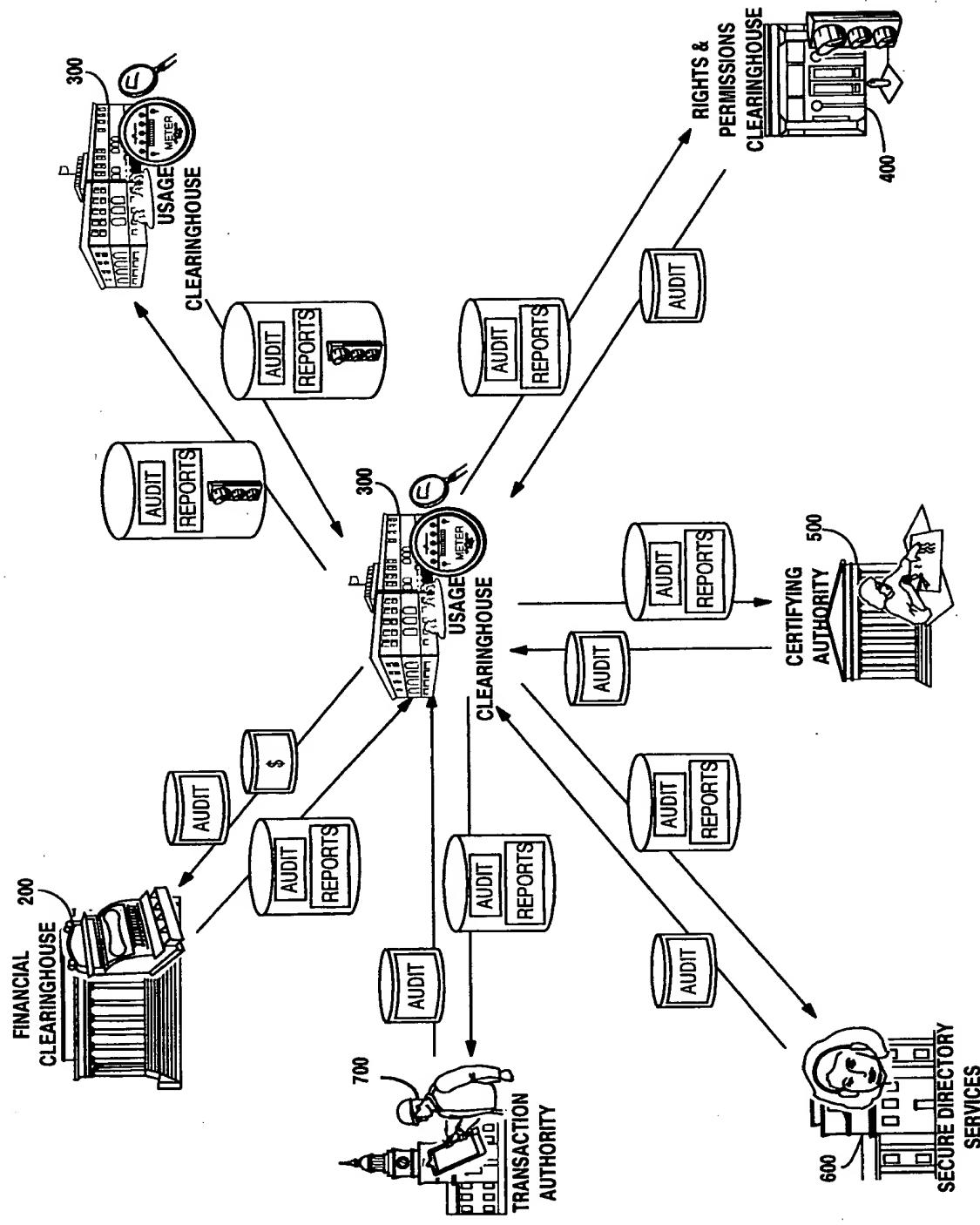
**FIG. 16**  
EXAMPLE CONTENT  
DISTRIBUTION VALUE CHAIN



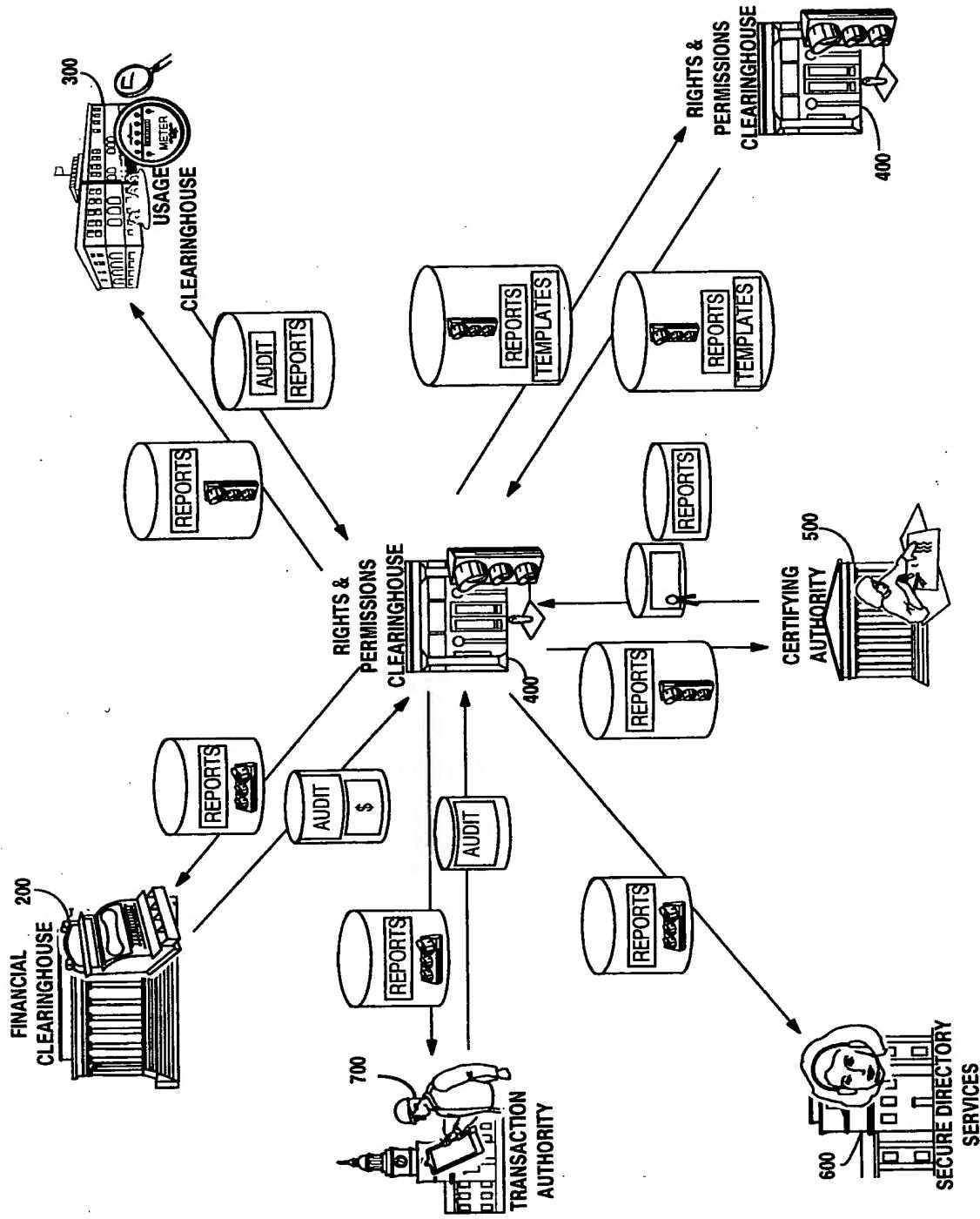
**FIG. 16A**



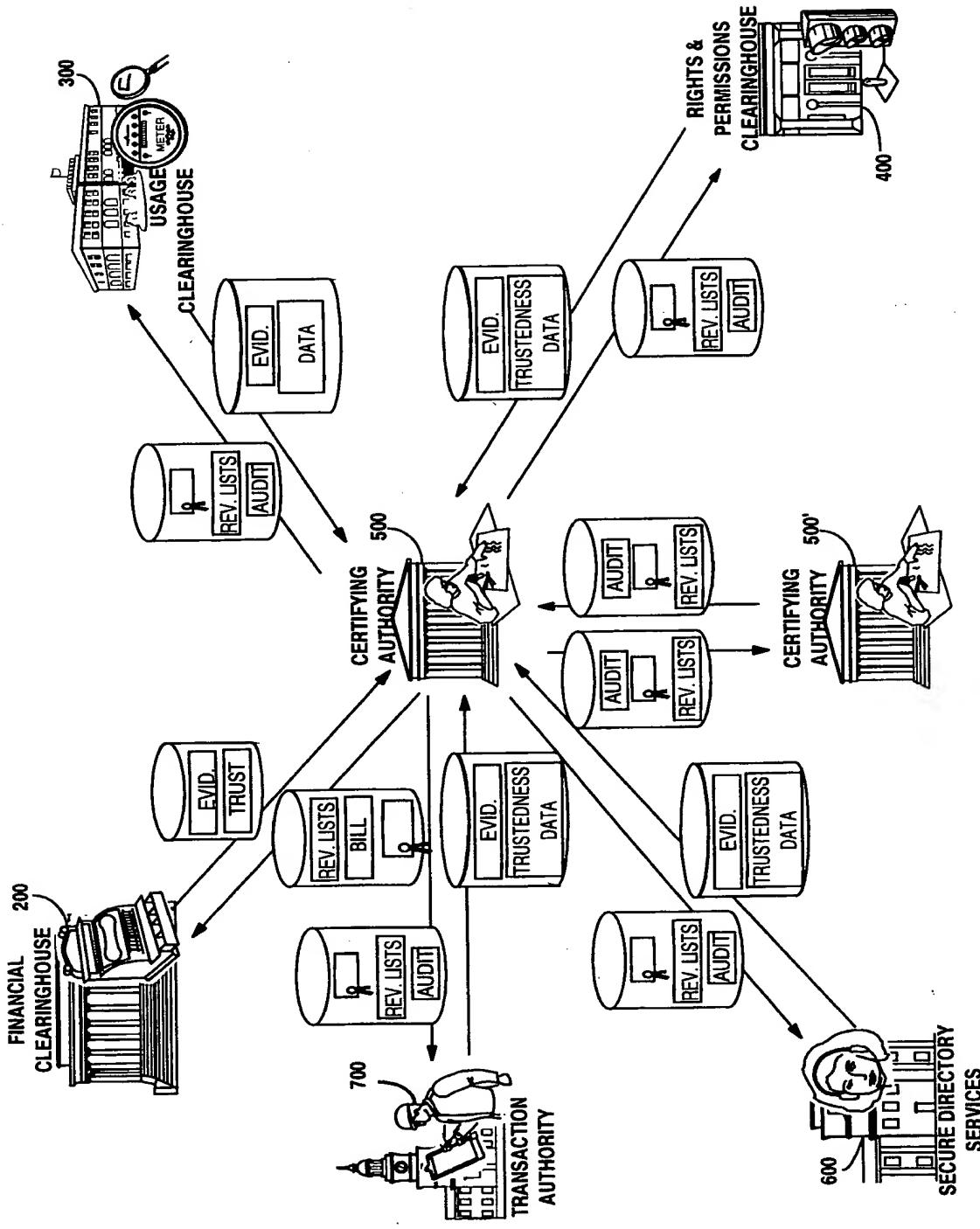
**FIG. 16B**



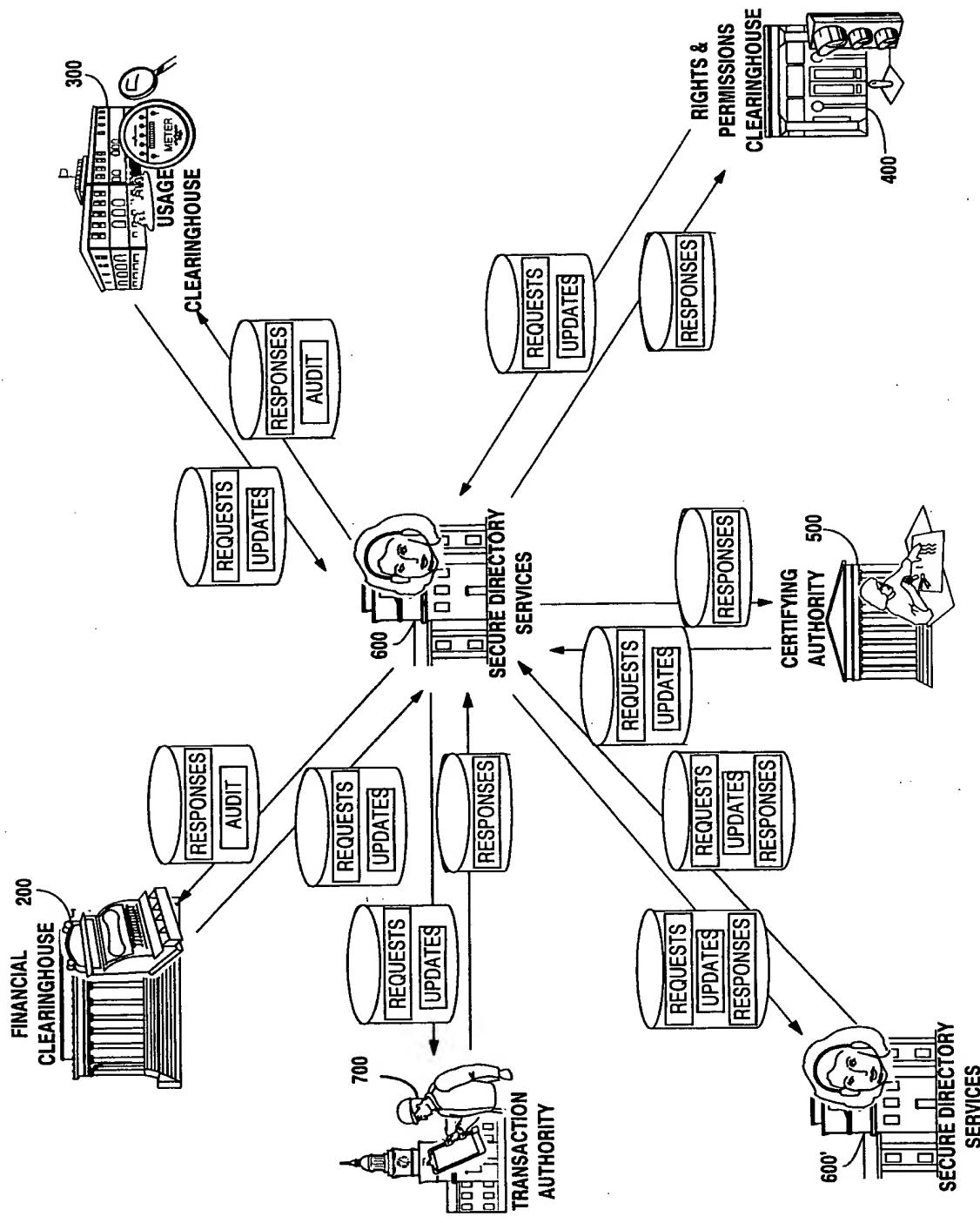
**FIG. 16C**



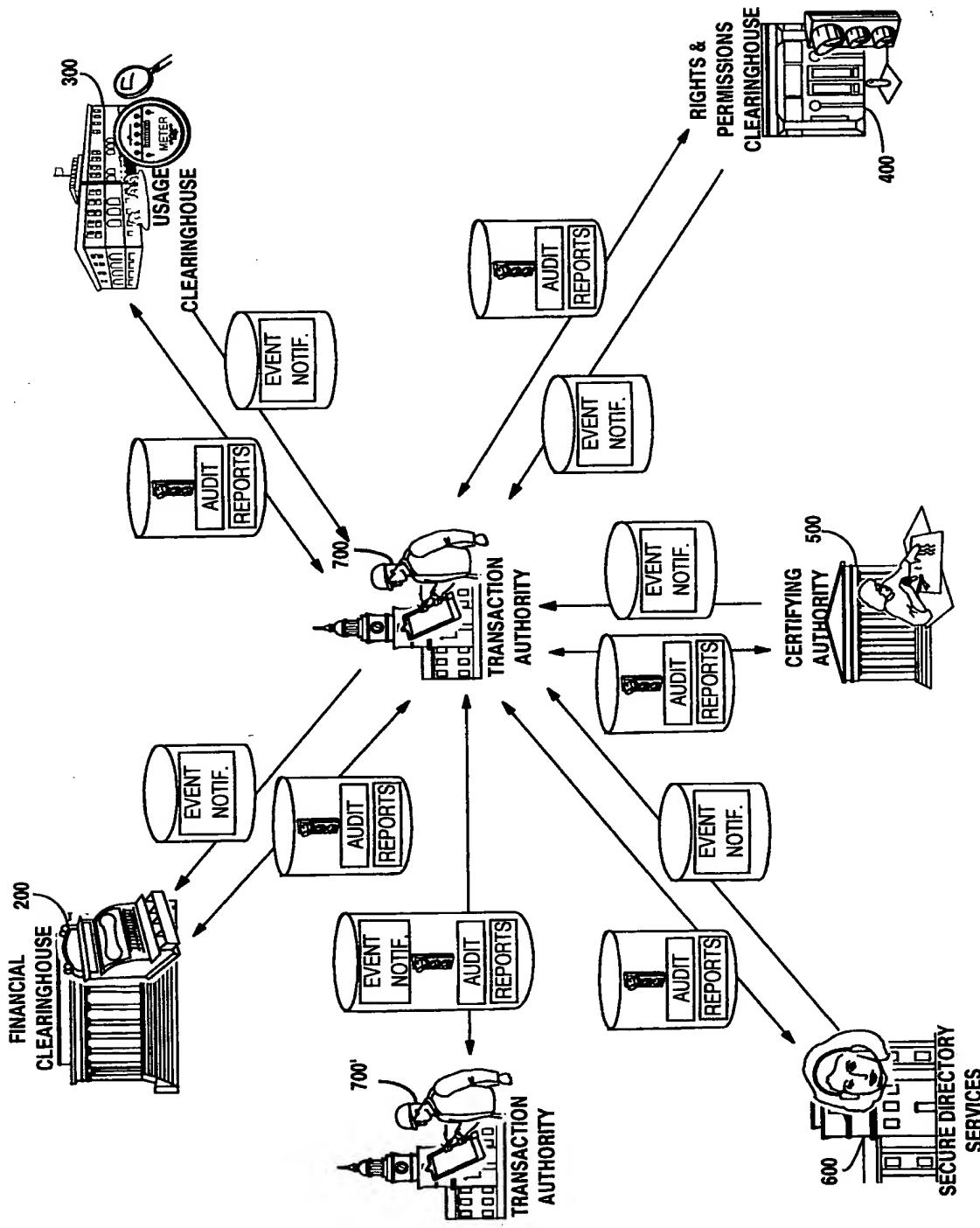
**FIG. 16D**

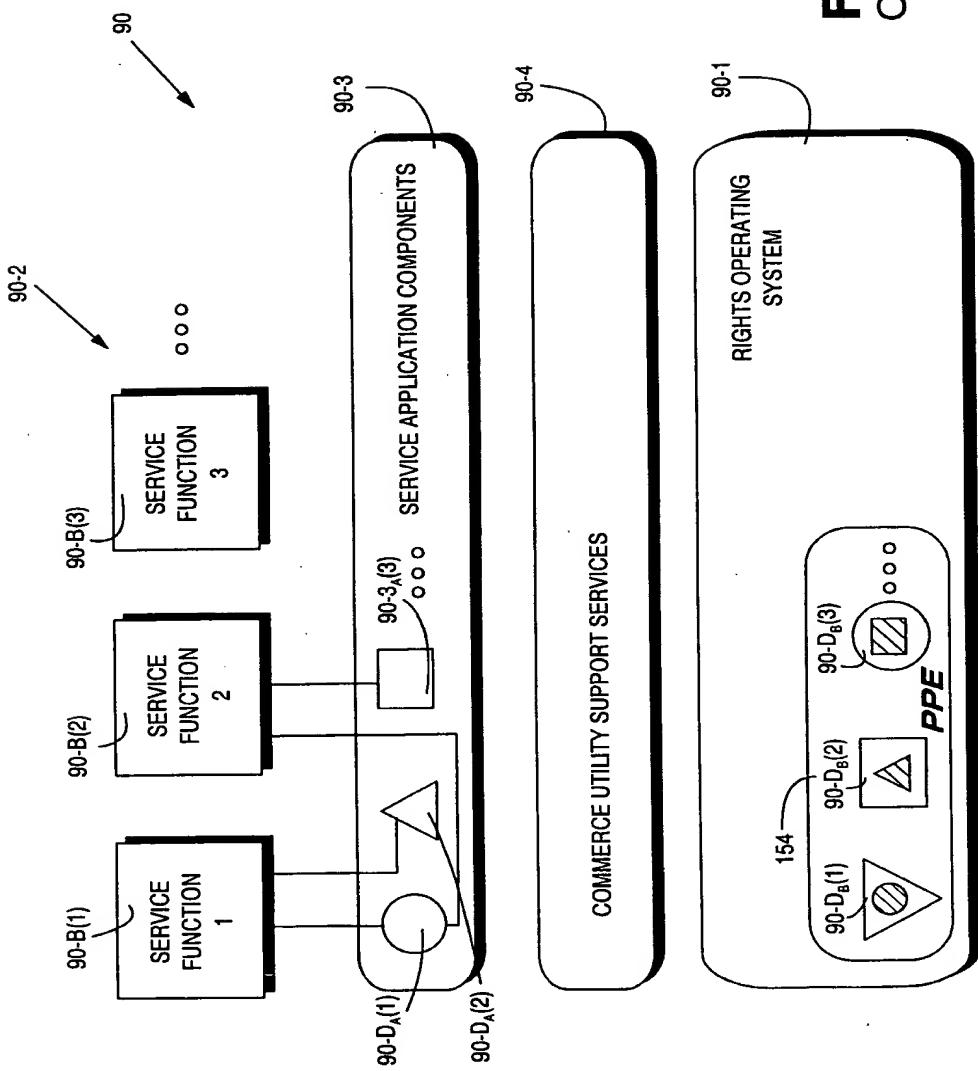


**FIG. 16E**

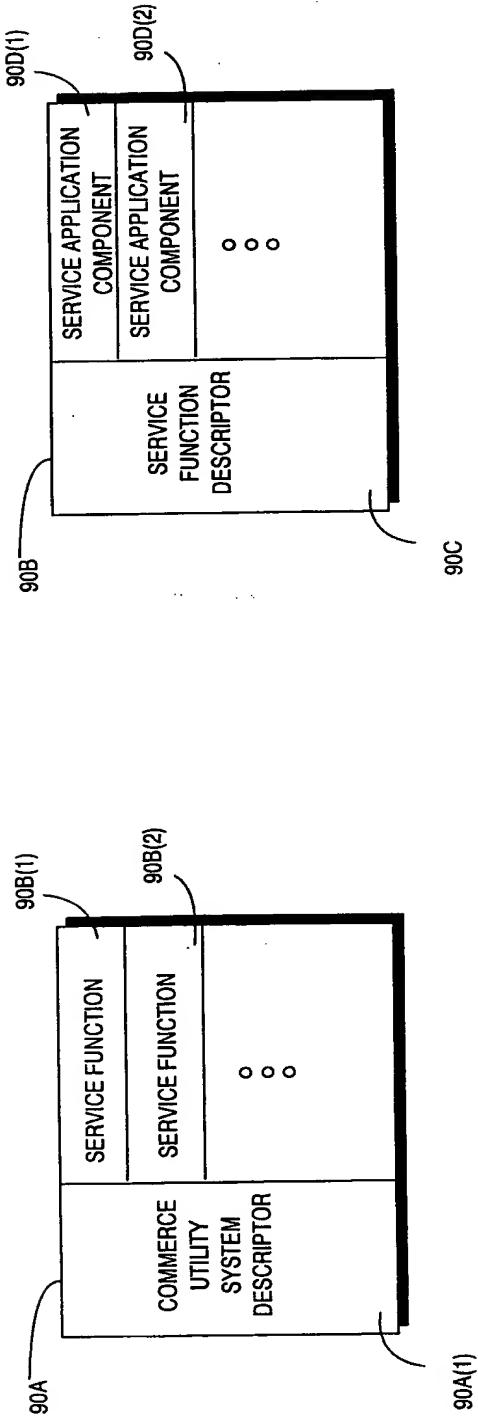


**FIG. 16F**





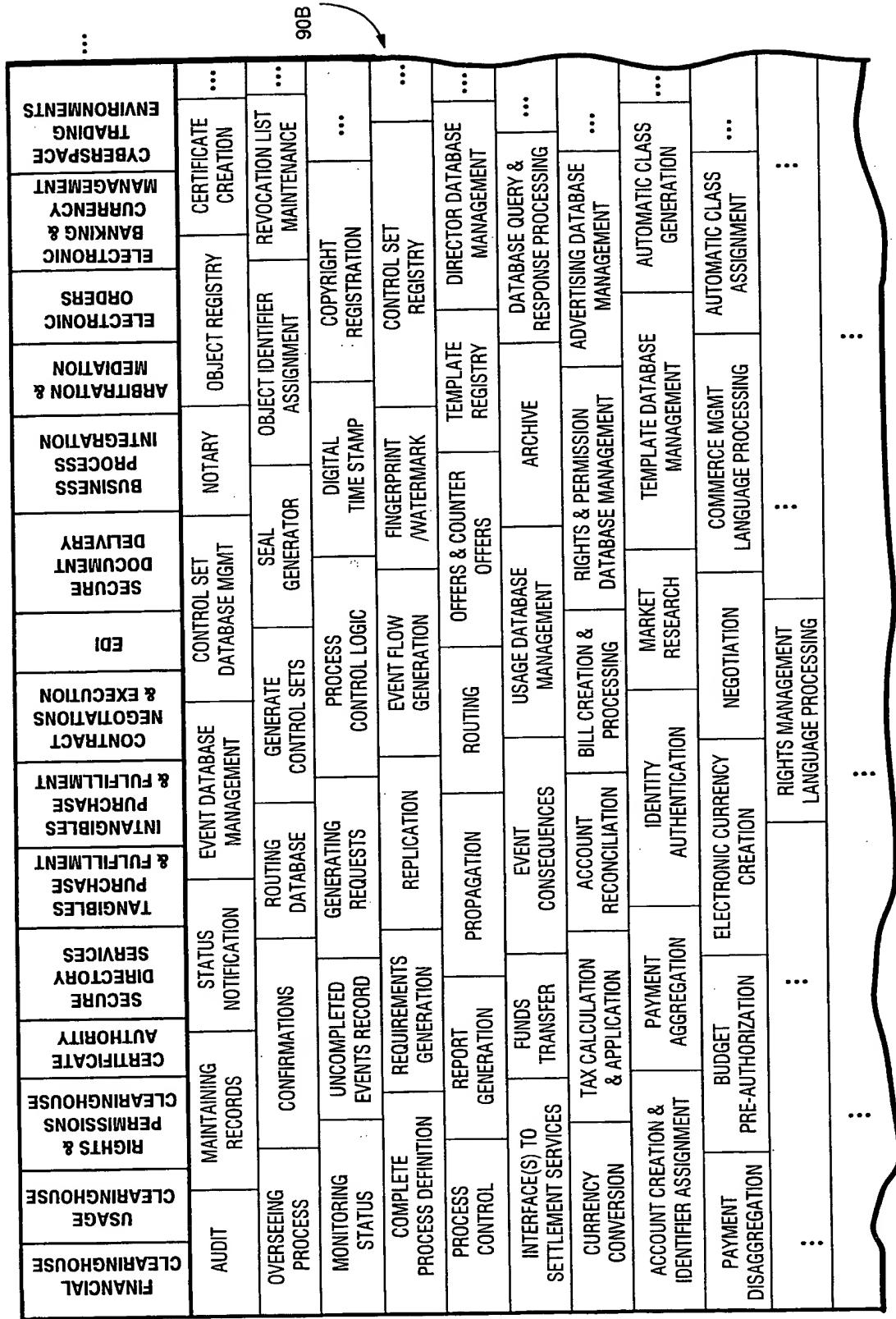
**FIG. 17A**  
Commerce Utility System 90



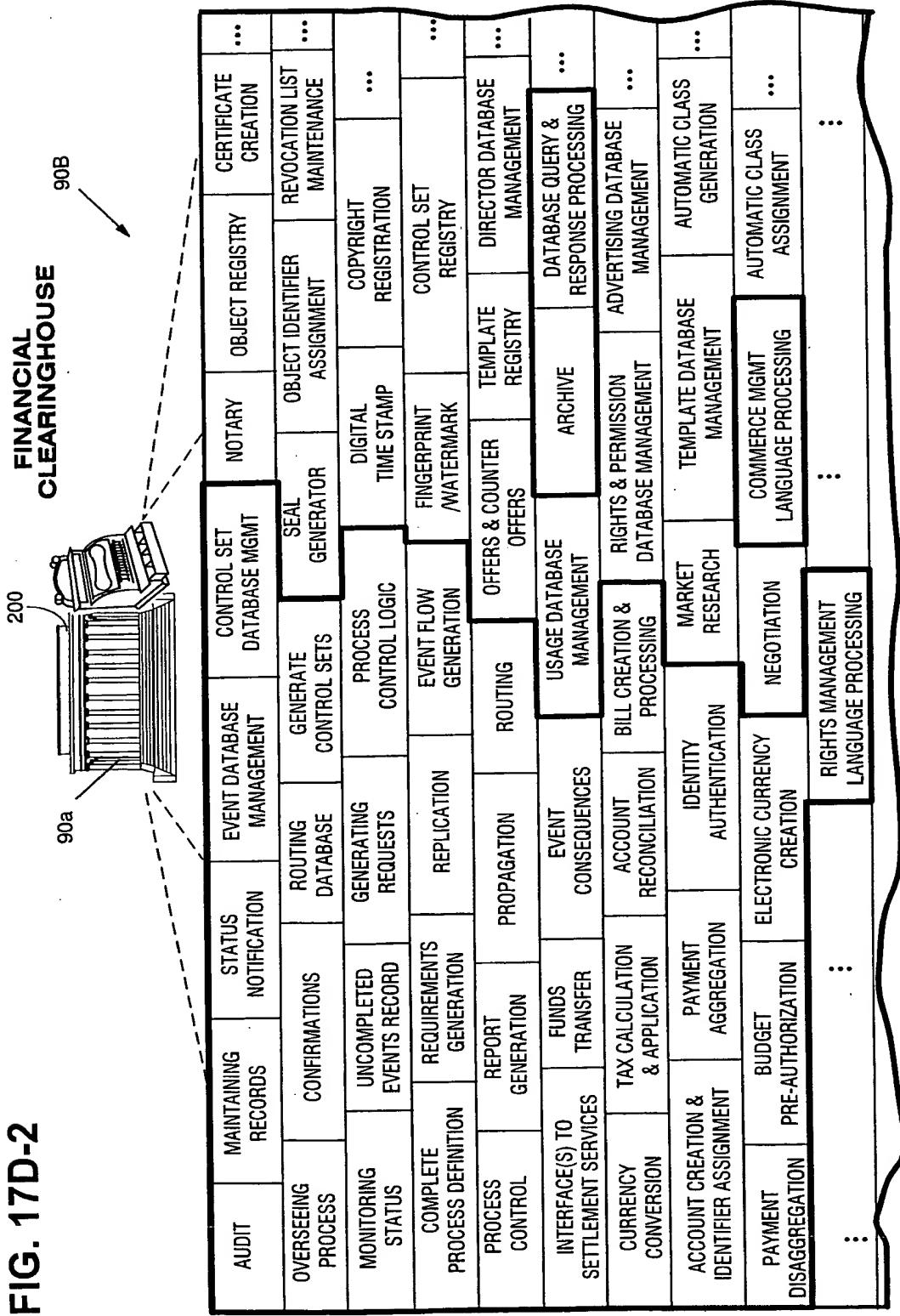
**FIG. 17B**

**FIG. 17C**

FIG. 17D-1

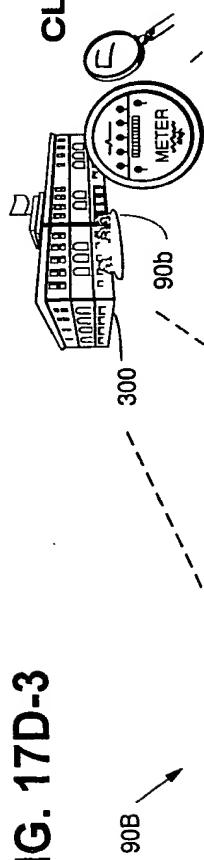


**FIG. 17D-2**

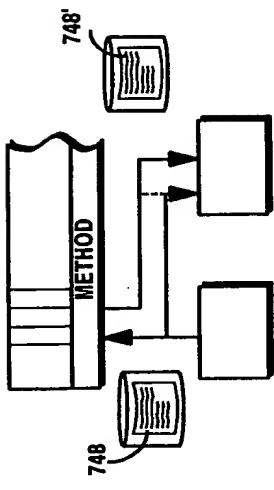


**FIG. 17D-3**

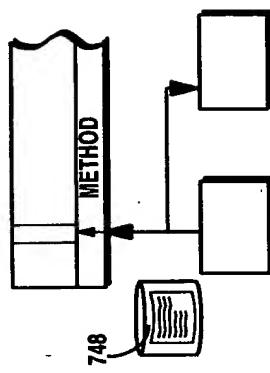
**USAGE  
CLEARINGHOUSE**



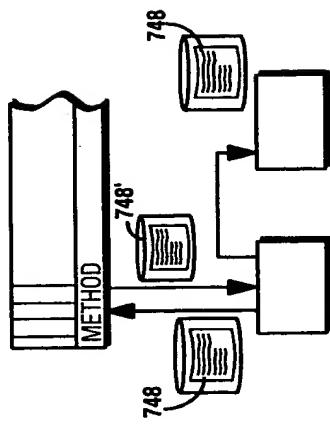
AUDIT	MAINTAINING RECORDS	STATUS NOTIFICATION	EVENT DATABASE MANAGEMENT	CONTROL SET DATABASE MGMT	NOTARY	OBJECT REGISTRY	CERTIFICATE CREATION	...
OVERSEEING PROCESS	CONFIRMATIONS	ROUTING DATABASE	GENERATE CONTROL SETS	SEAL GENERATOR	OBJECT IDENTIFIER ASSIGNMENT	REVOCATION LIST MAINTENANCE	...	
MONITORING STATUS	UNCOMPLETED EVENTS RECORD	GENERATING REQUESTS	PROCESS CONTROL LOGIC	DIGITAL TIME STAMP	COPYRIGHT REGISTRATION	...		
COMPLETE PROCESS DEFINITION	REQUIREMENTS GENERATION	REPLICATION	EVENT FLOW GENERATION	FINGERPRINT /WATERMARK	CONTROL SET REGISTRY	...		
PROCESS CONTROL	REPORT GENERATION	PROPAGATION	ROUTING	OFFERS & COUNTER OFFERS	TEMPLATE REGISTRY	DIRECTOR DATABASE MANAGEMENT	...	
INTERFACE(S) TO SETTLEMENT SERVICES	FUNDS TRANSFER	EVENT CONSEQUENCES	USAGE DATABASE MANAGEMENT	ARCHIVE	DATABASE QUERY & RESPONSE PROCESSING	...		
CURRENCY CONVERSION	TAX CALCULATION & APPLICATION	ACCOUNT RECONCILIATION	BILL CREATION & PROCESSING	RIGHTS & PERMISSION MANAGEMENT	ADVERTISING DATABASE MANAGEMENT	...		
ACCOUNT CREATION & IDENTIFIER ASSIGNMENT	PAYMENT AGGREGATION	IDENTITY AUTHENTICATION	MARKET RESEARCH	TEMPLATE DATABASE MANAGEMENT	AUTOMATIC CLASS GENERATION	...		
PAYOUT DISAGGREGATION	BUDGET PRE-AUTHORIZATION	ELECTRONIC CURRENCY CREATION	NEGOTIATION	COMMERCE MGMT LANGUAGE PROCESSING	AUTOMATIC CLASS ASSIGNMENT	...		
:	:	RIGHTS MANAGEMENT LANGUAGE PROCESSING	:	:	:			



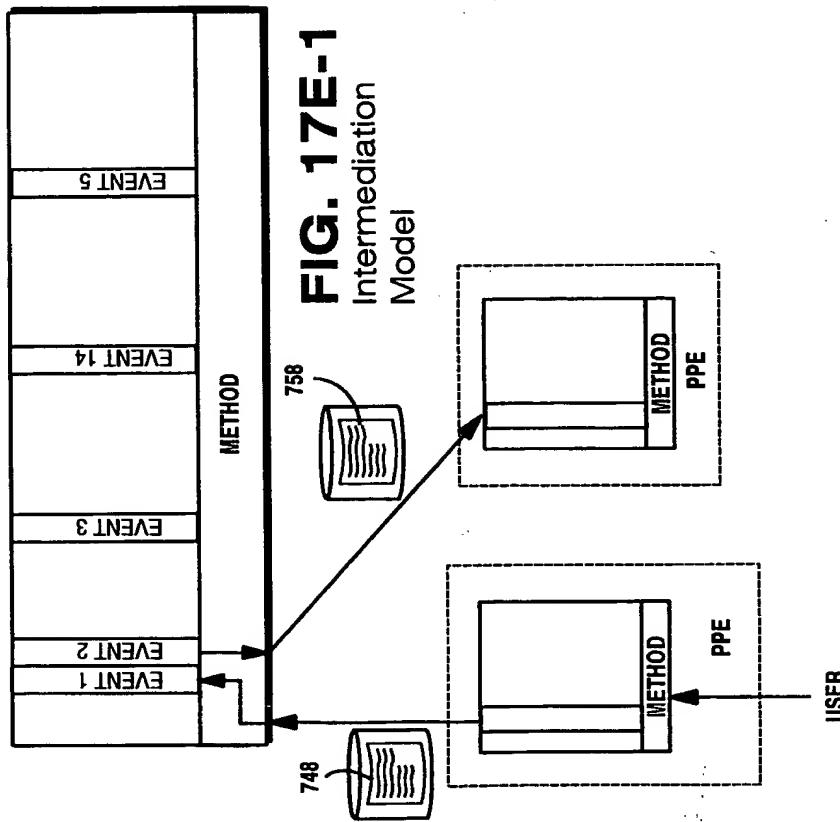
**FIG. 17E-2**  
Authentication to Proceed



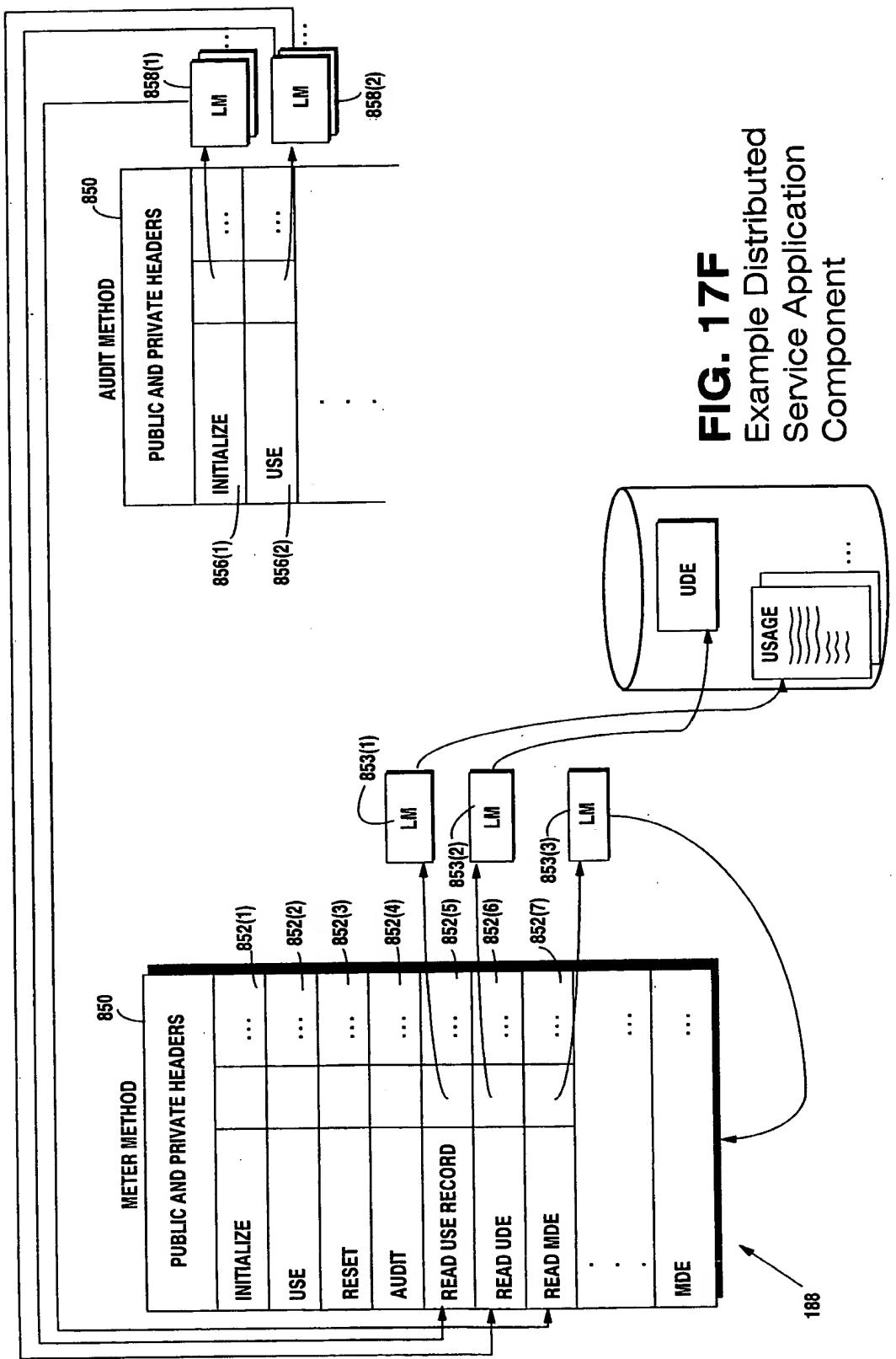
**FIG. 17E-3**  
Notification Model



**FIG. 17E-4**  
Prior Authorization Model

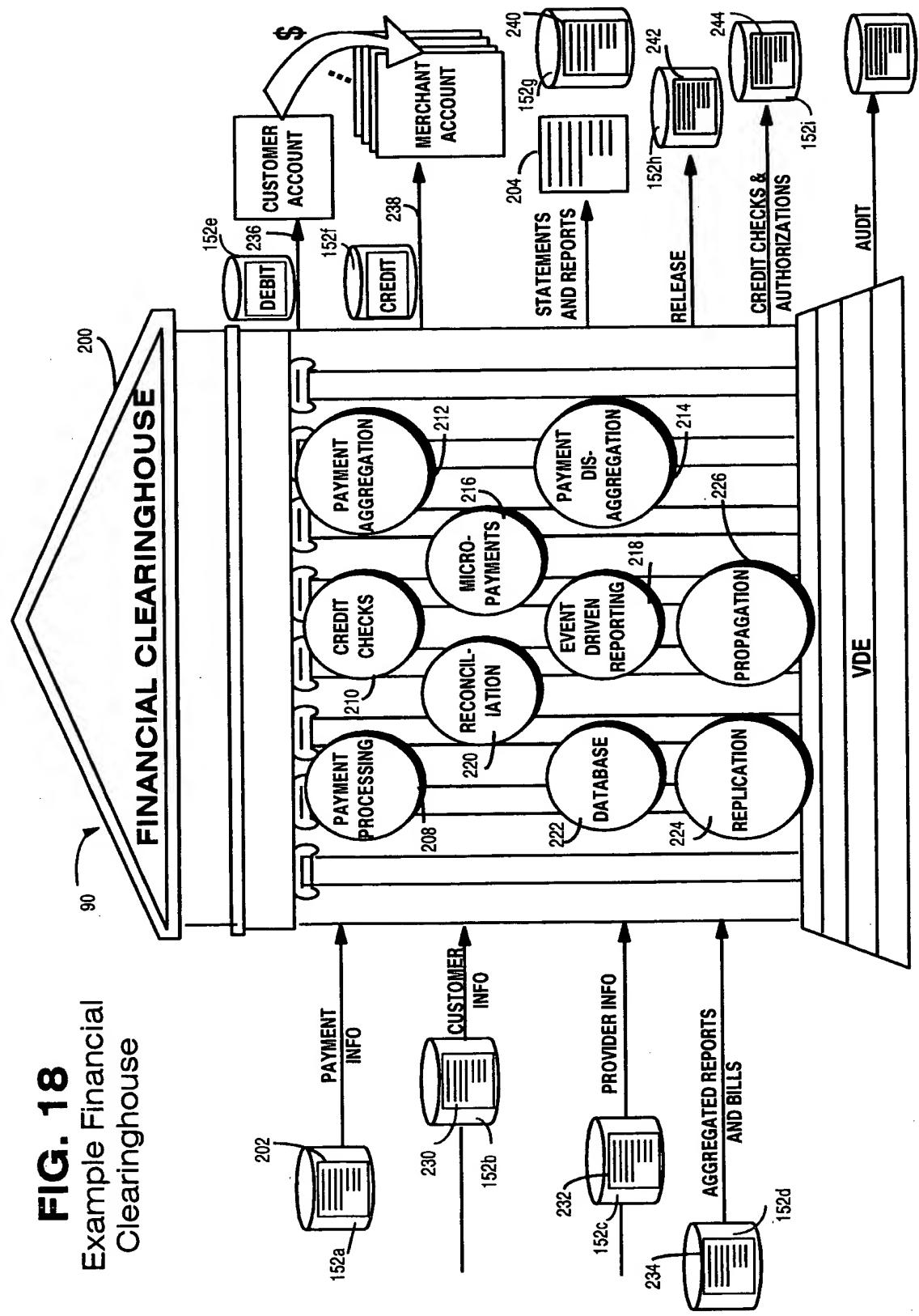


**FIG. 17E-1**  
Intermediation  
Model

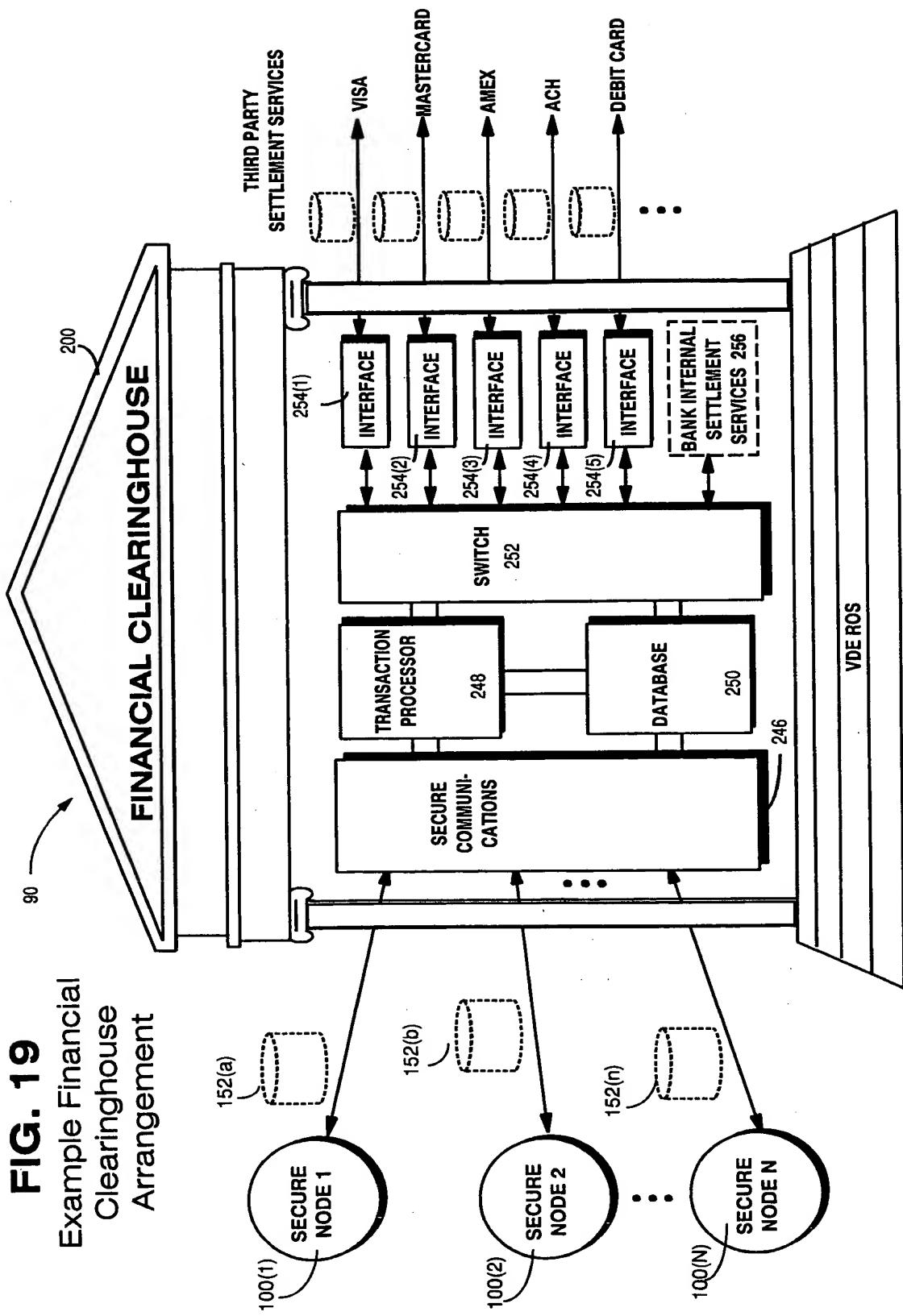


**FIG. 17F**  
Example Distributed  
Service Application  
Component

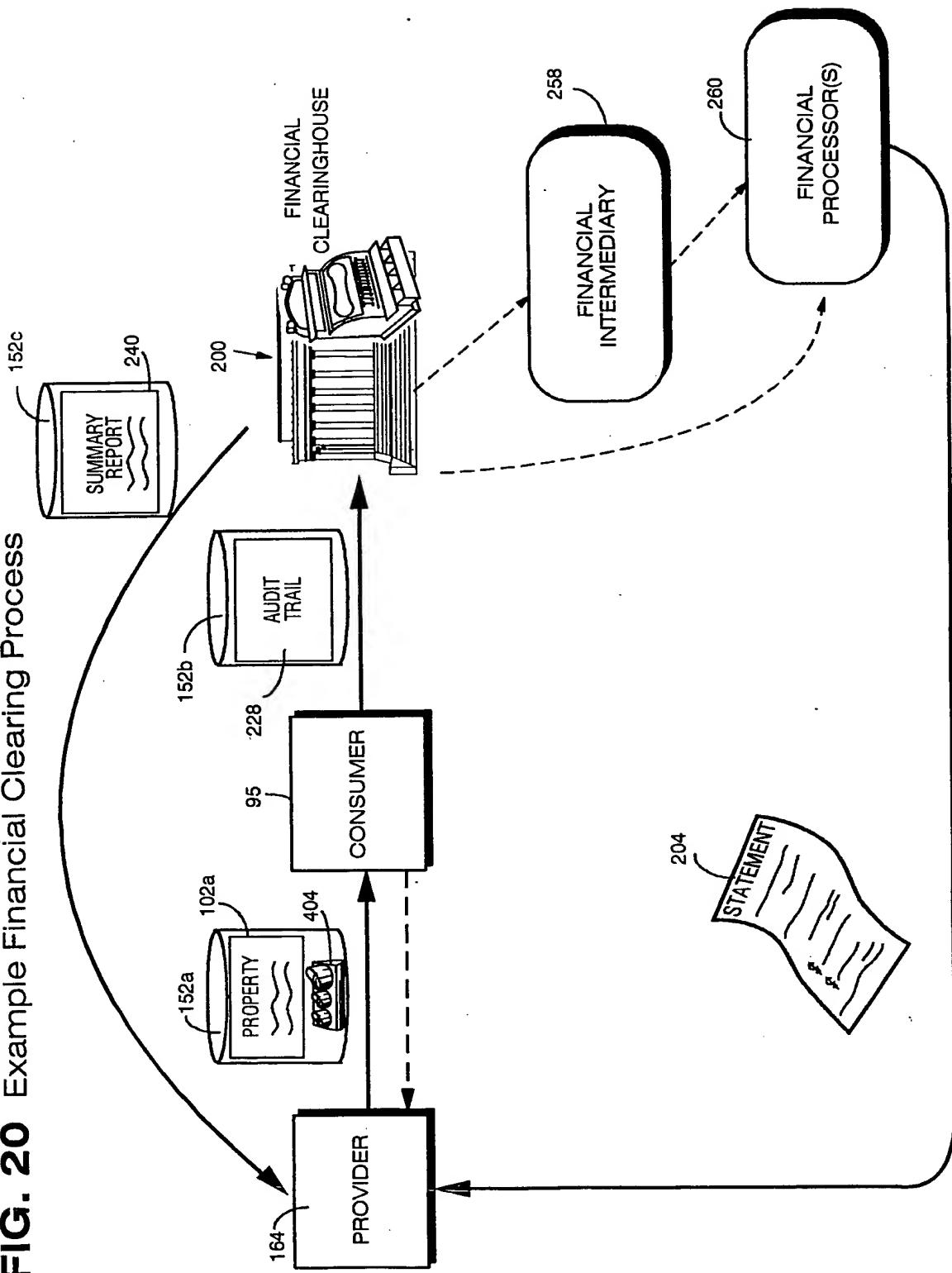
**FIG. 18**  
Example Financial  
Clearinghouse

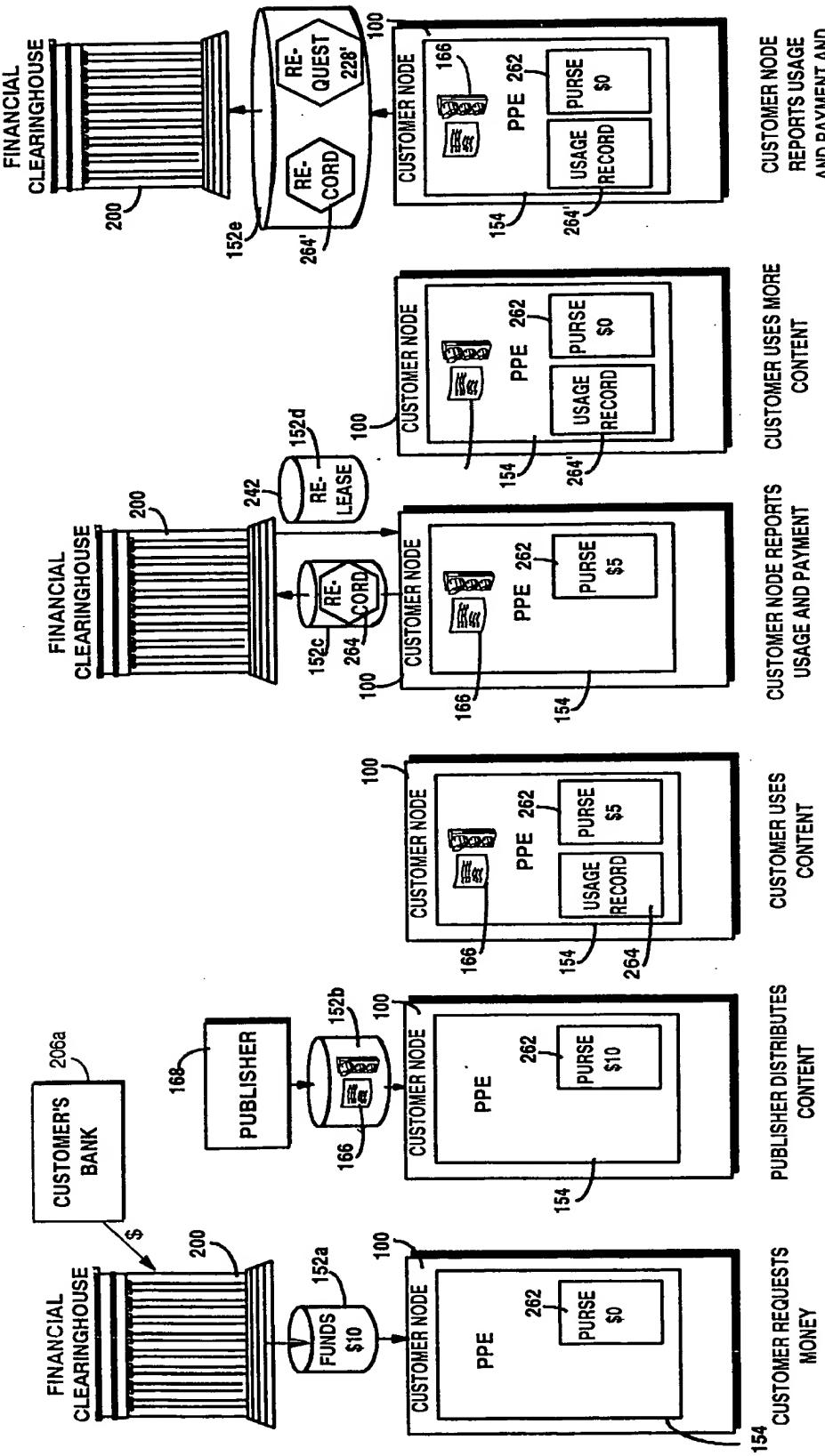


**FIG. 19**  
Example Financial  
Clearinghouse  
Arrangement



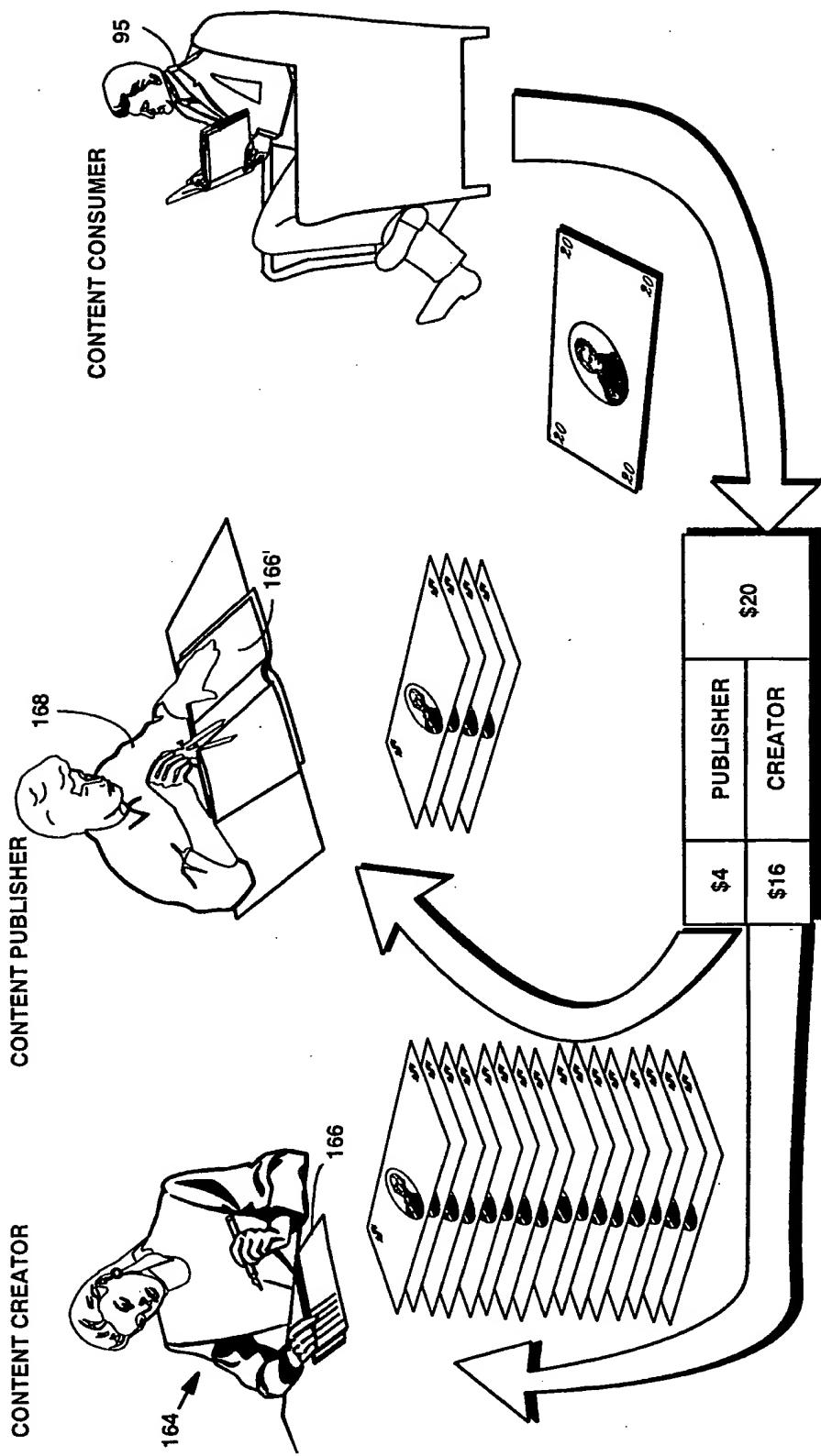
**FIG. 20** Example Financial Clearing Process



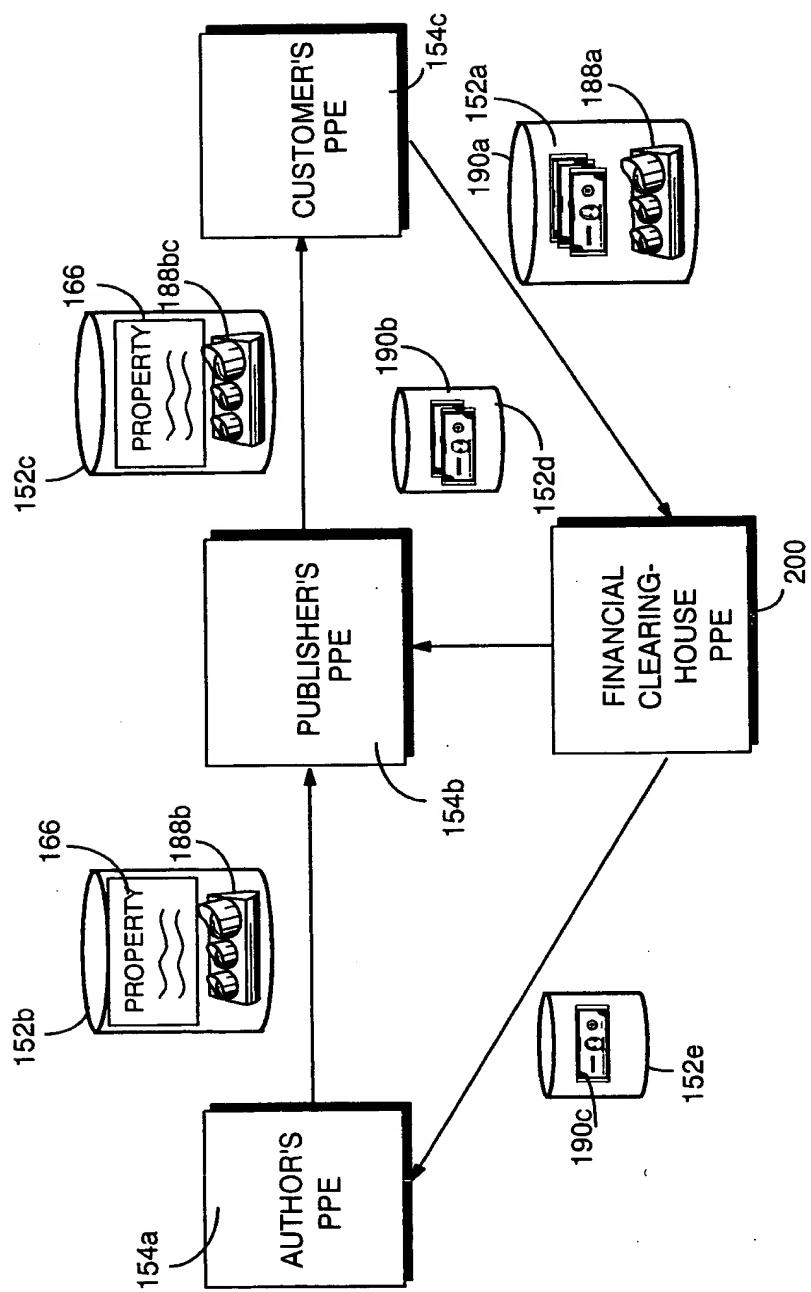


EXAMPLE FINANCIAL CLEARING ACTIVITIES

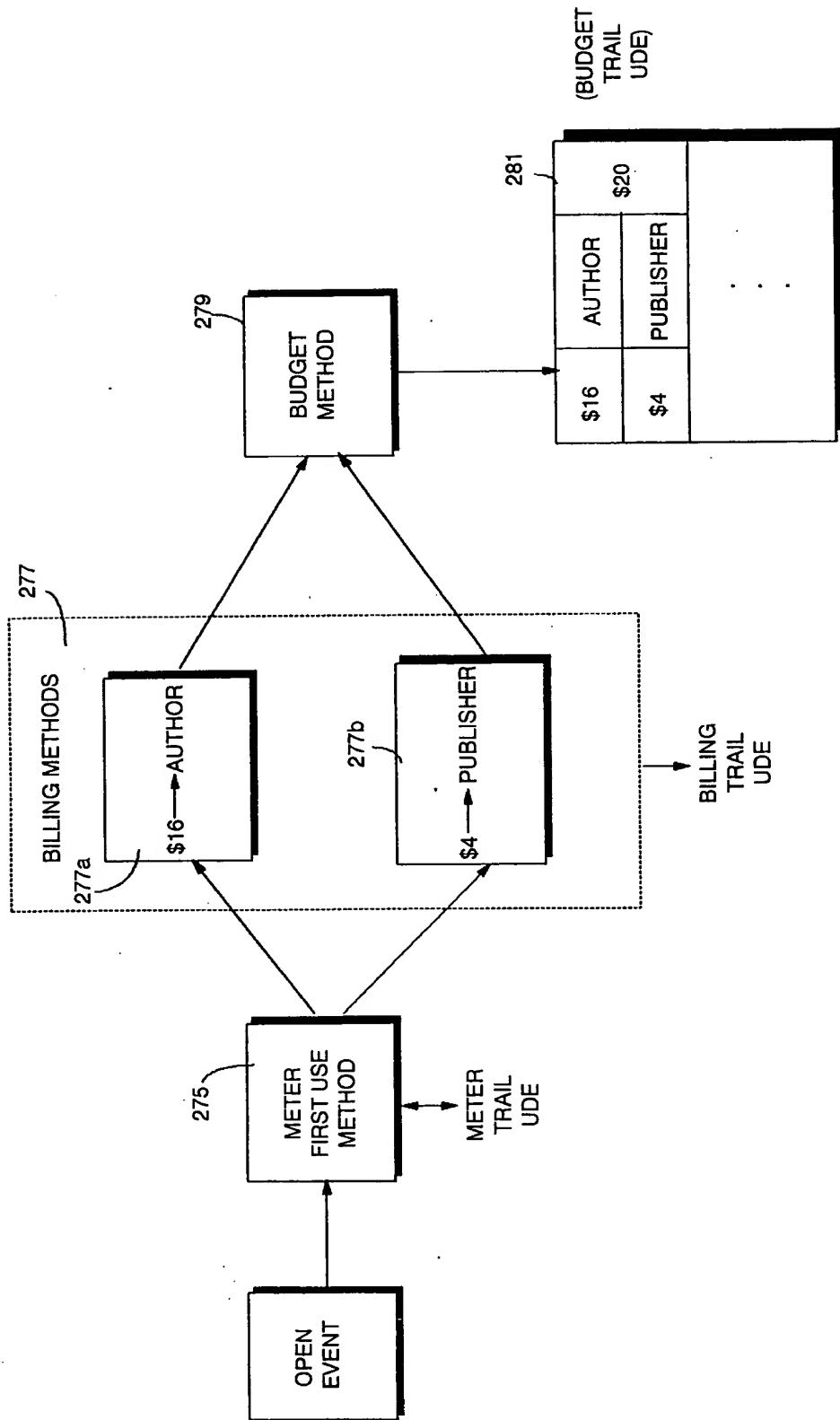
**FIG. 20B** **FIG. 20C** **FIG. 20D** **FIG. 20E** **FIG. 20F**



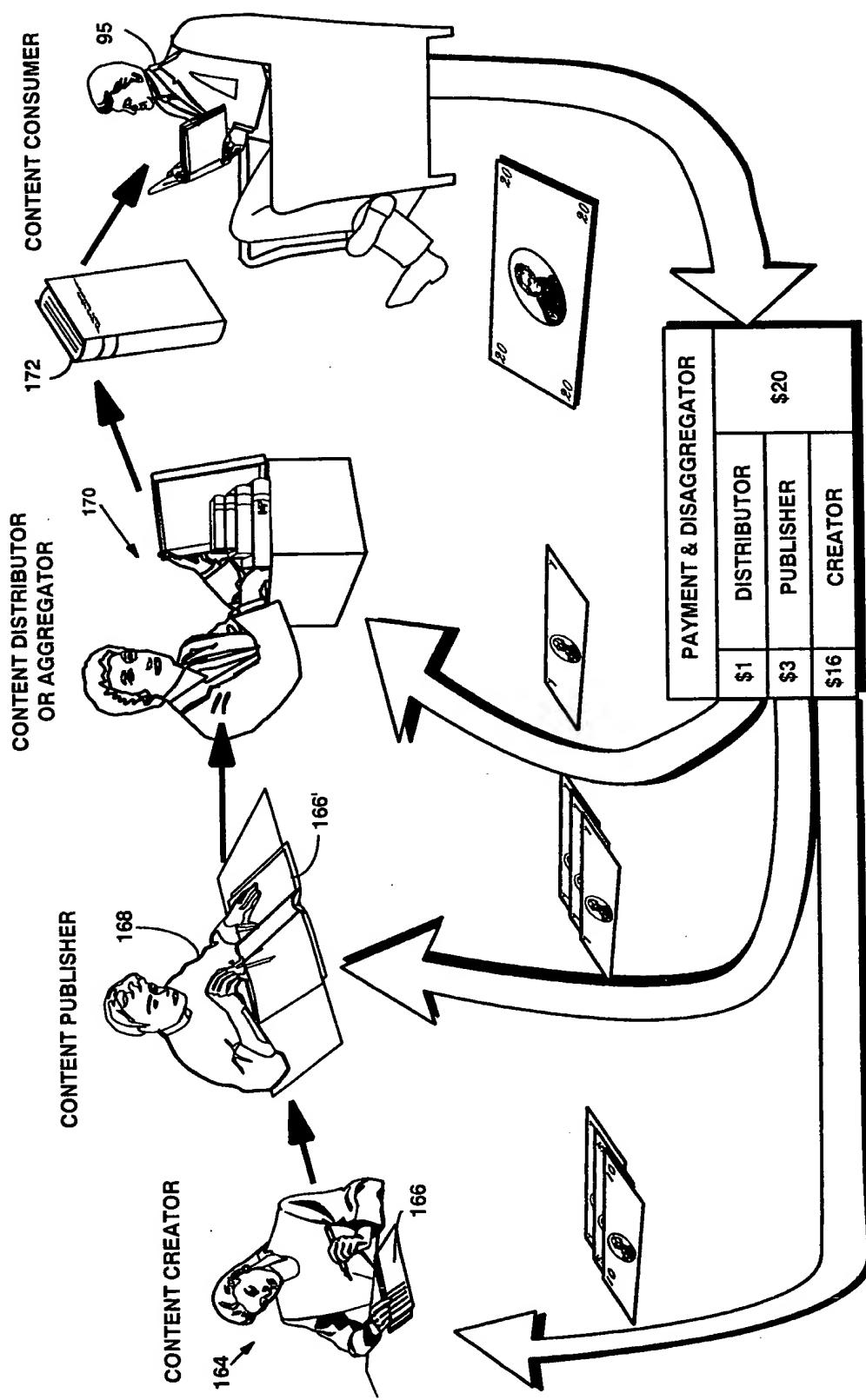
**FIG. 21** Example Payment Disaggregation



**FIG. 22 PAYMENT AND REDISTRIBUTION EXAMPLE**

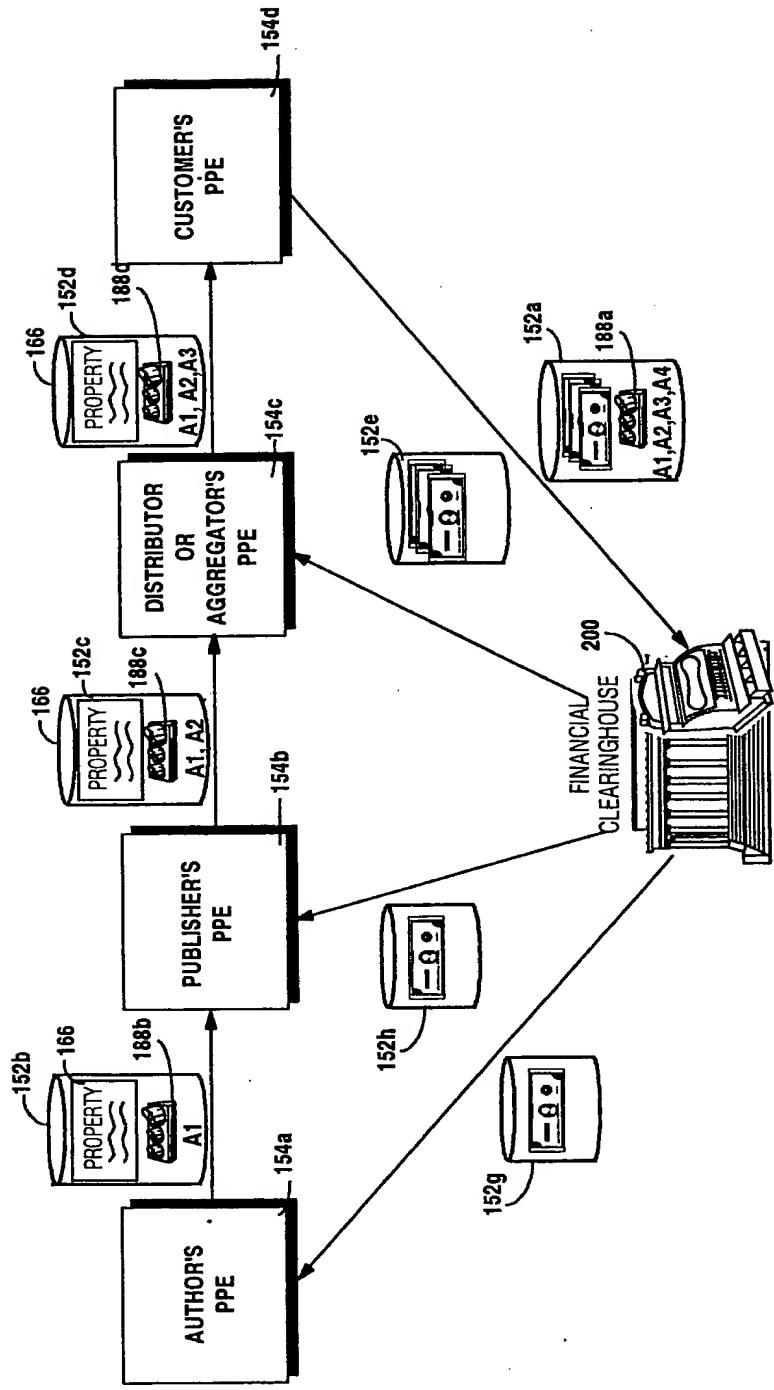


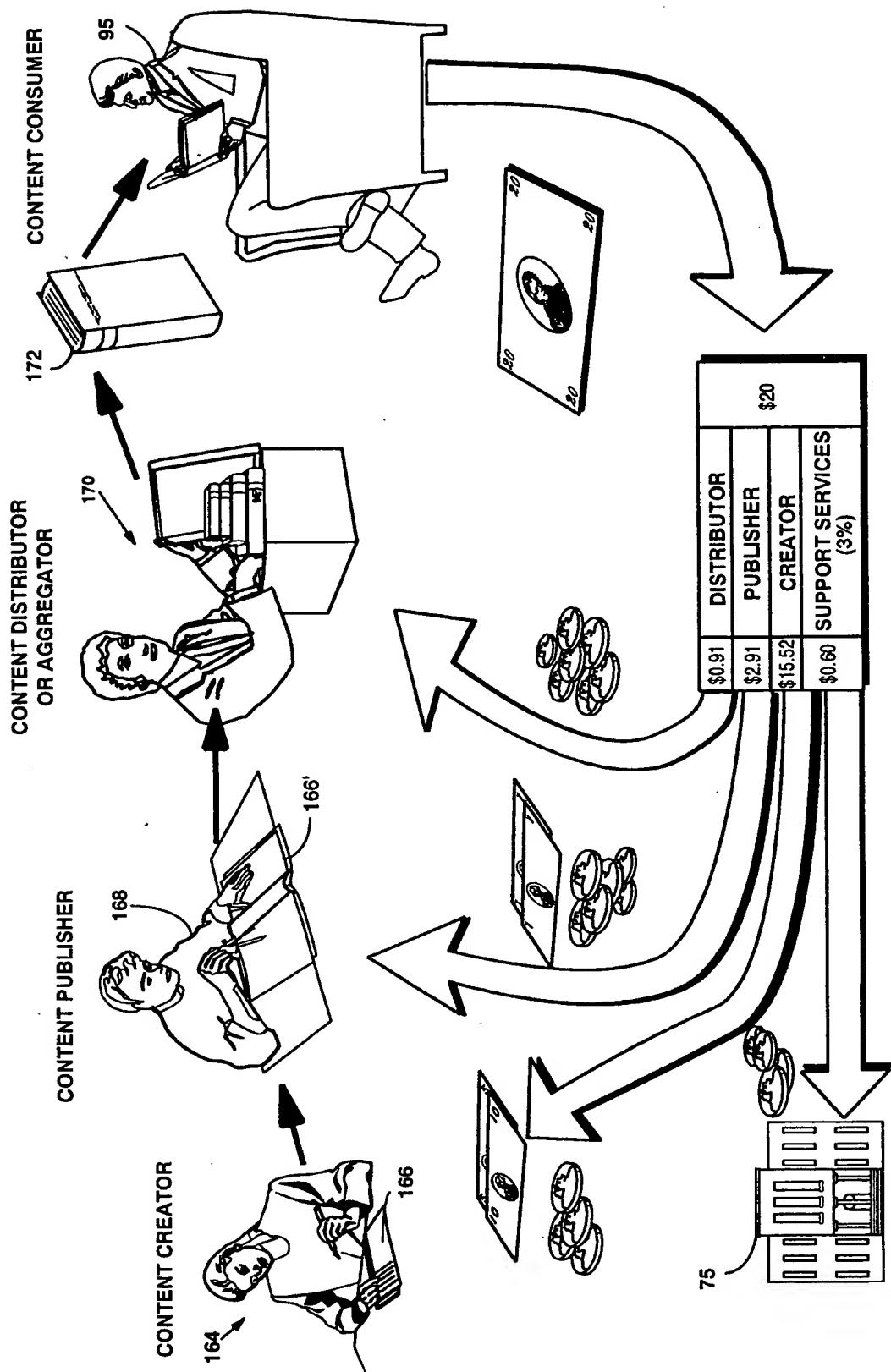
**FIG. 22A User Node Disaggregation Example**



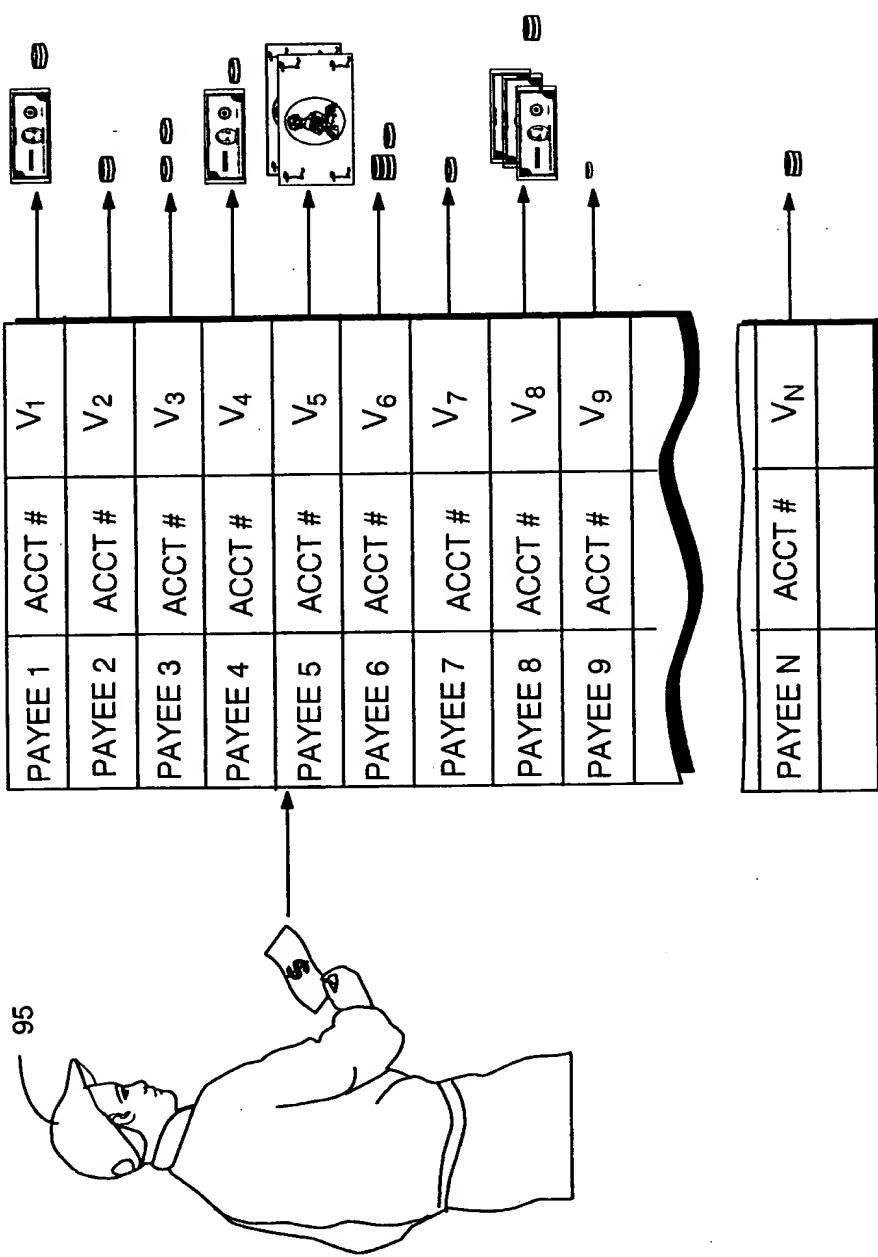
**FIG. 23** Payment Disaggregation

**FIG. 24**  
EXAMPLE PAYMENT  
AND REDISTRIBUTION  
SCENARIO



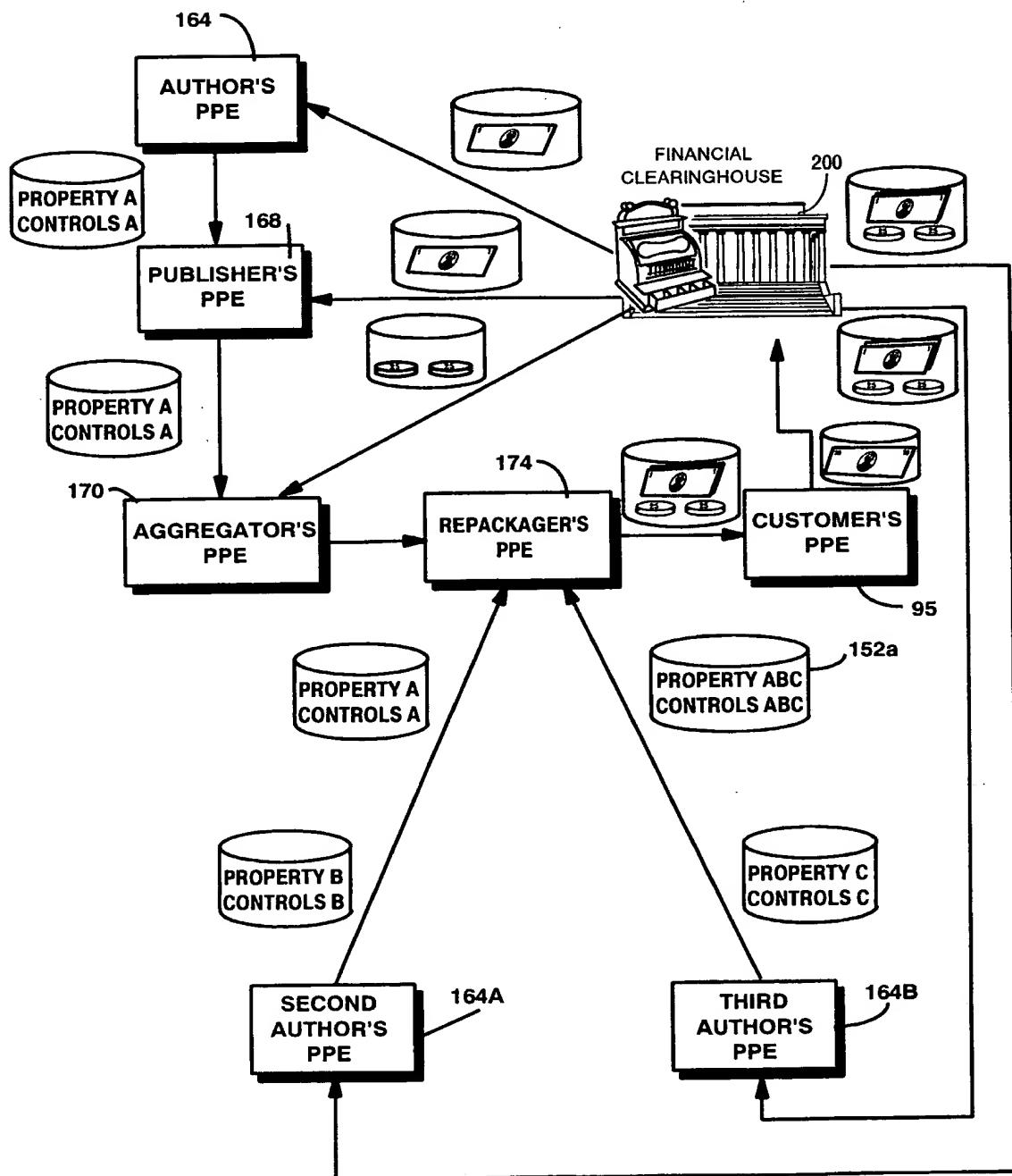


**FIG. 25** Example Payment Disaggregation

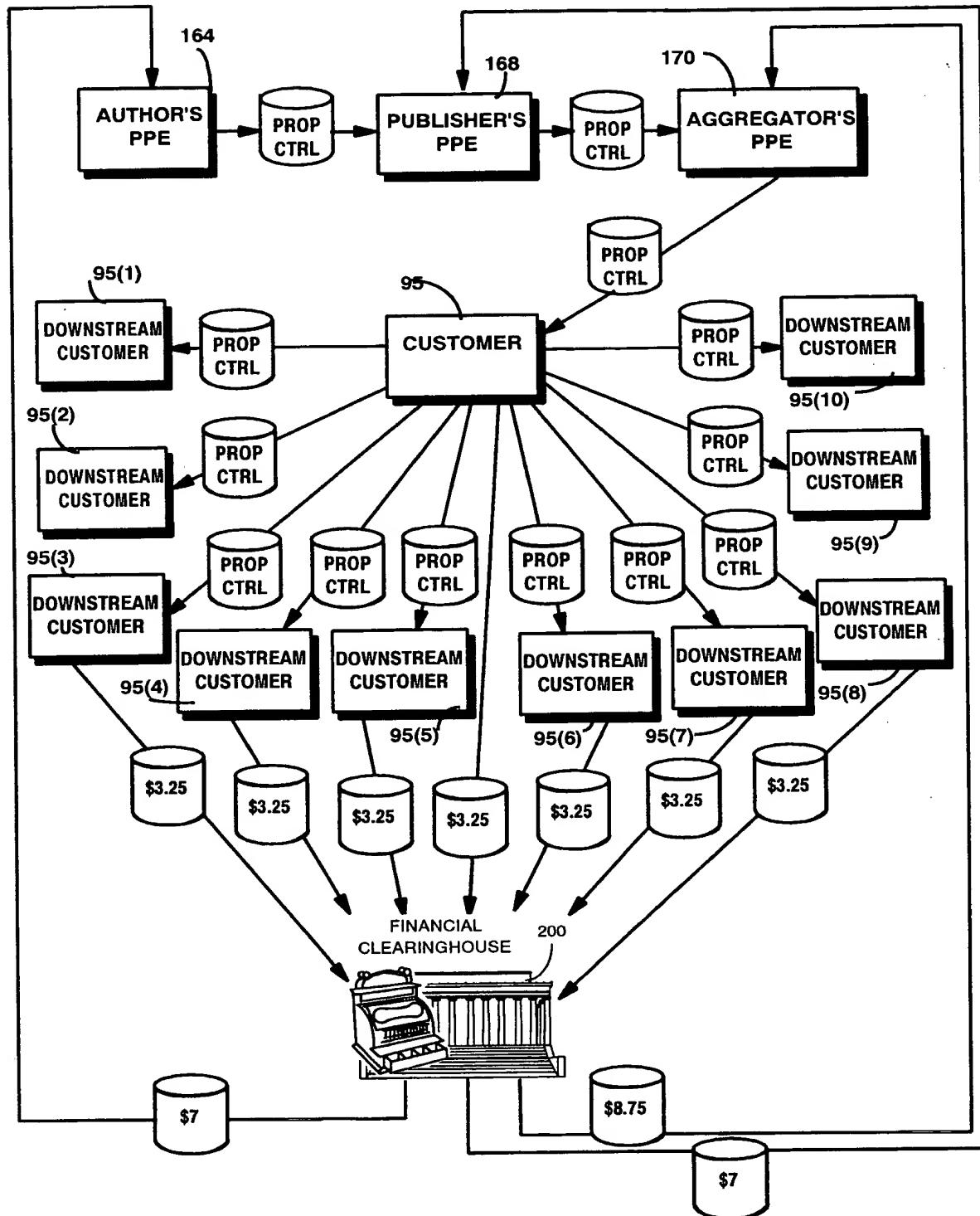


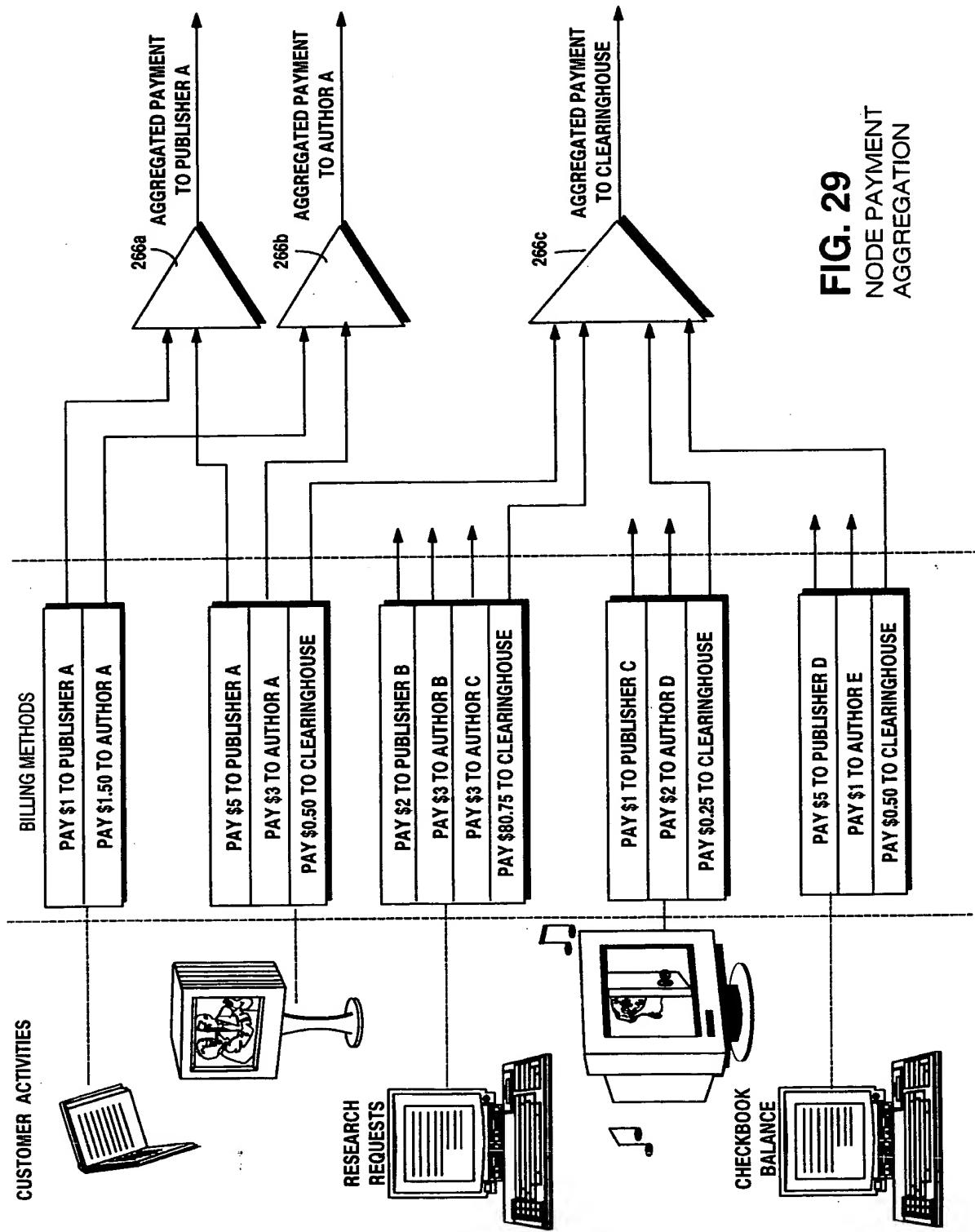
**FIG. 26** PAYMENT DISAGGREGATION

**FIG. 27**  
Example Payment and  
Redistribution Scenario

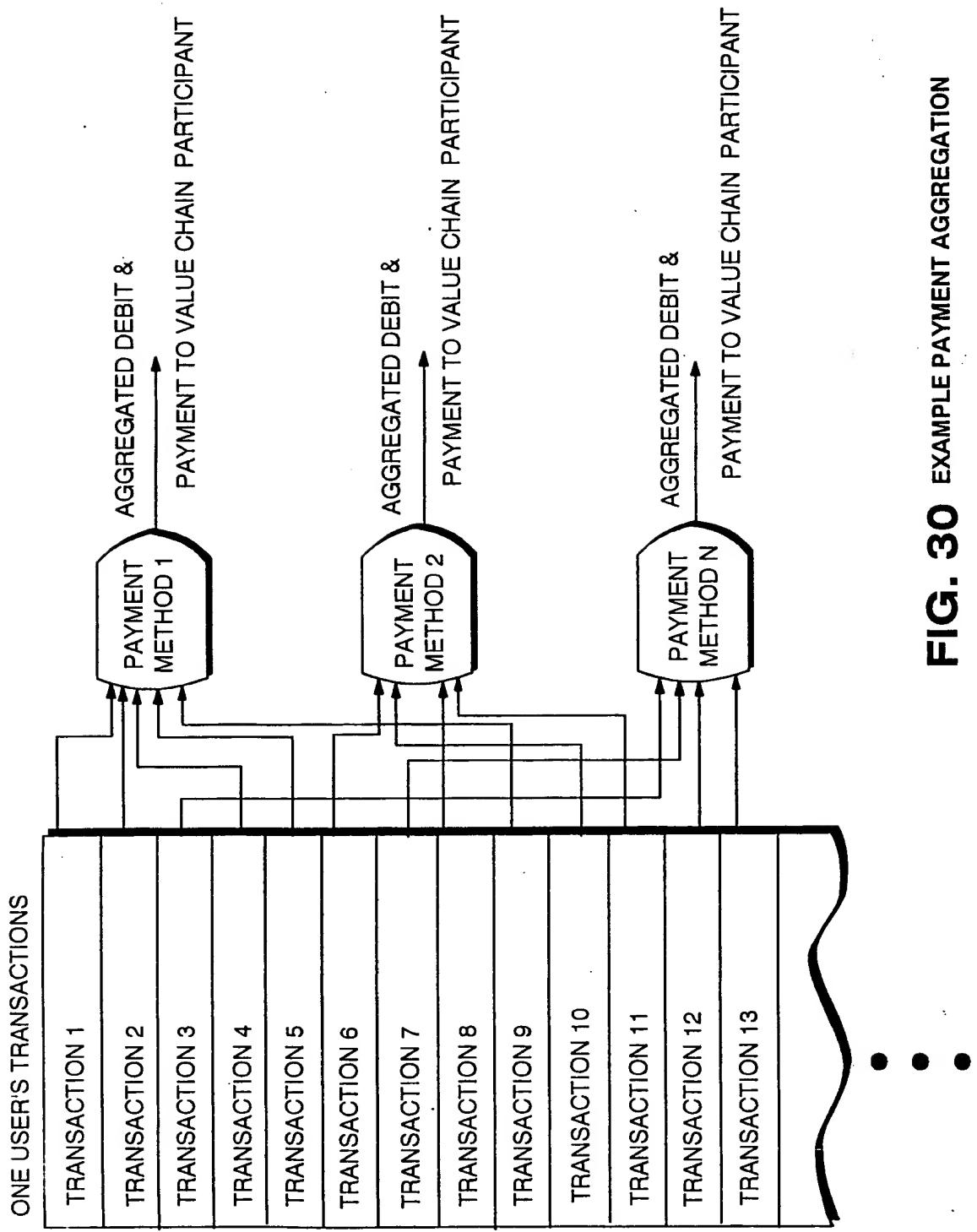


**FIG. 28** Example Super Distribution

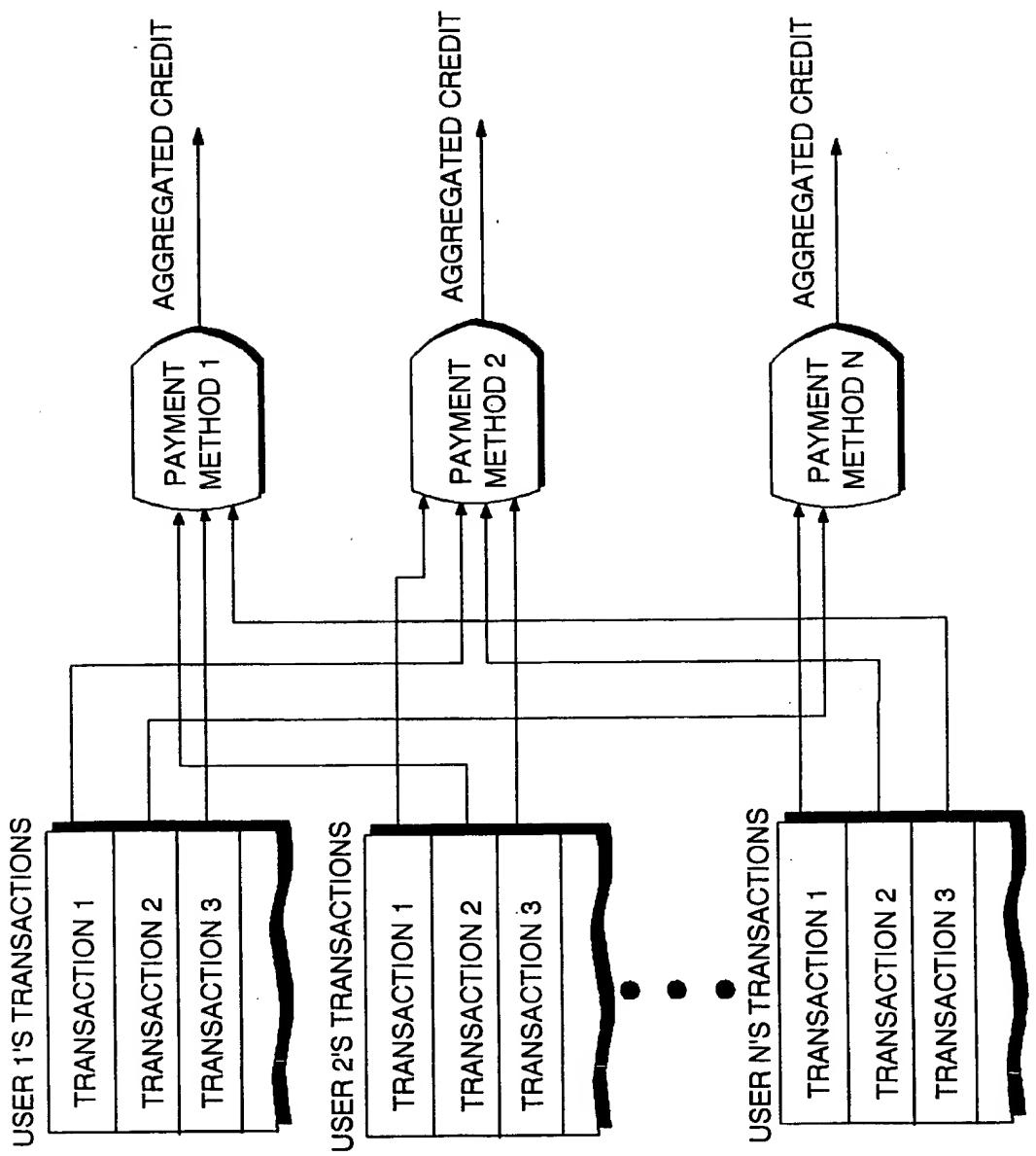




**FIG. 29**  
NODE PAYMENT  
AGGREGATION

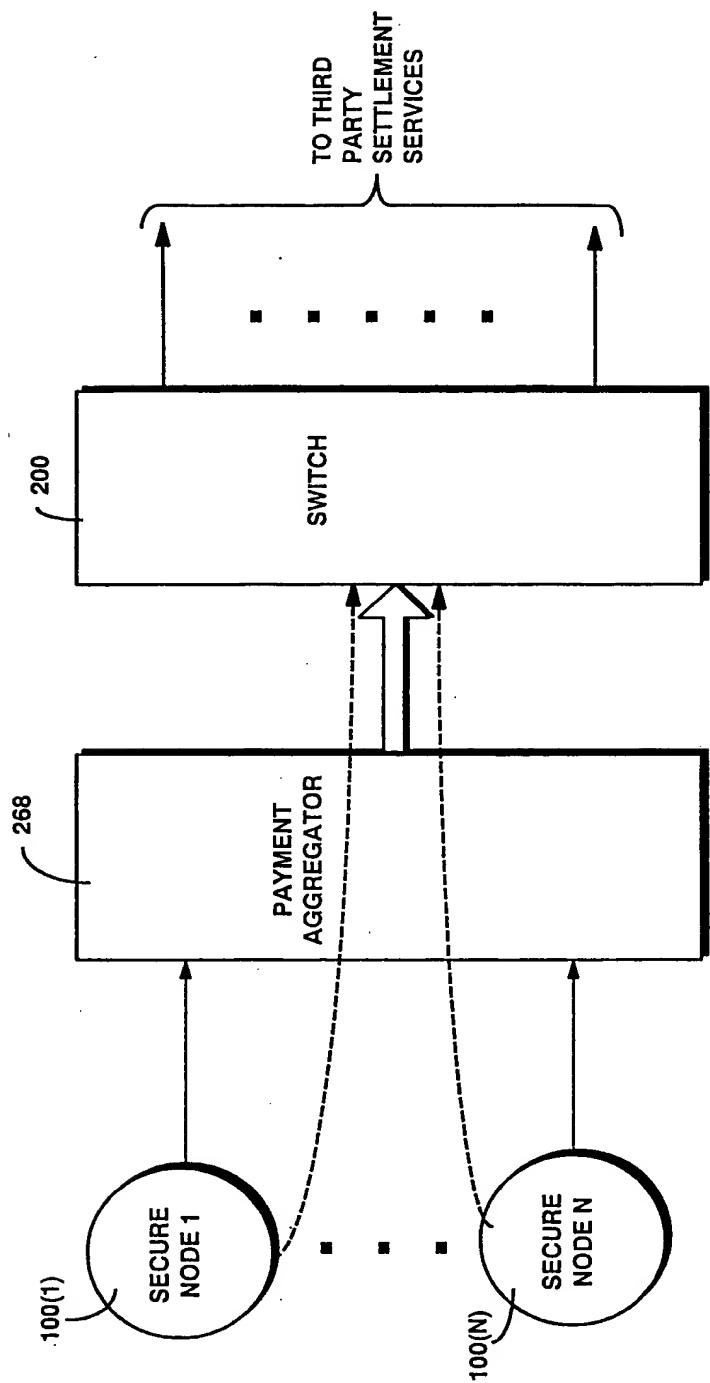


**FIG. 30** EXAMPLE PAYMENT AGGREGATION

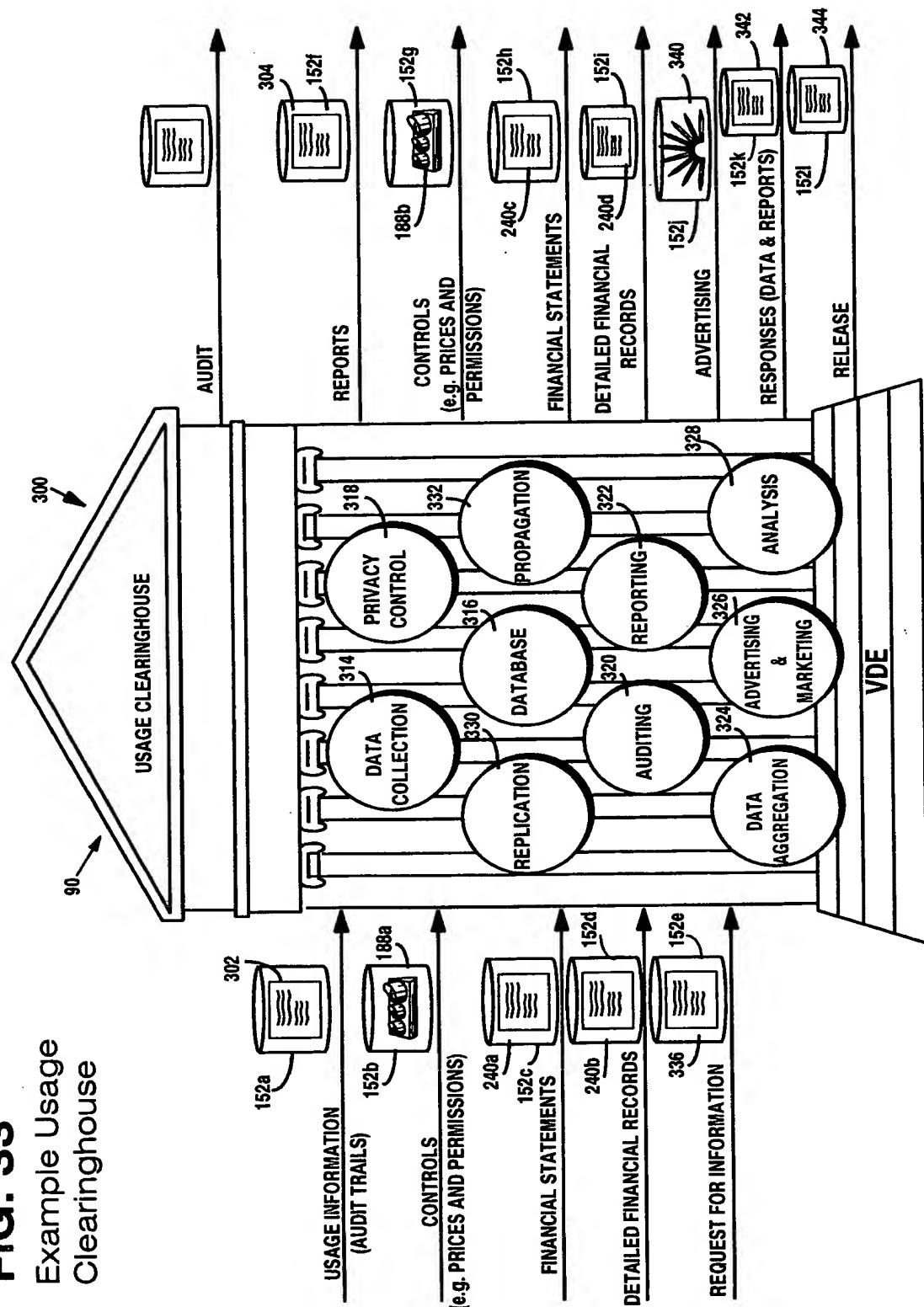


**FIG. 3.1** Financial Clearinghouse  
Example Payment Aggregation

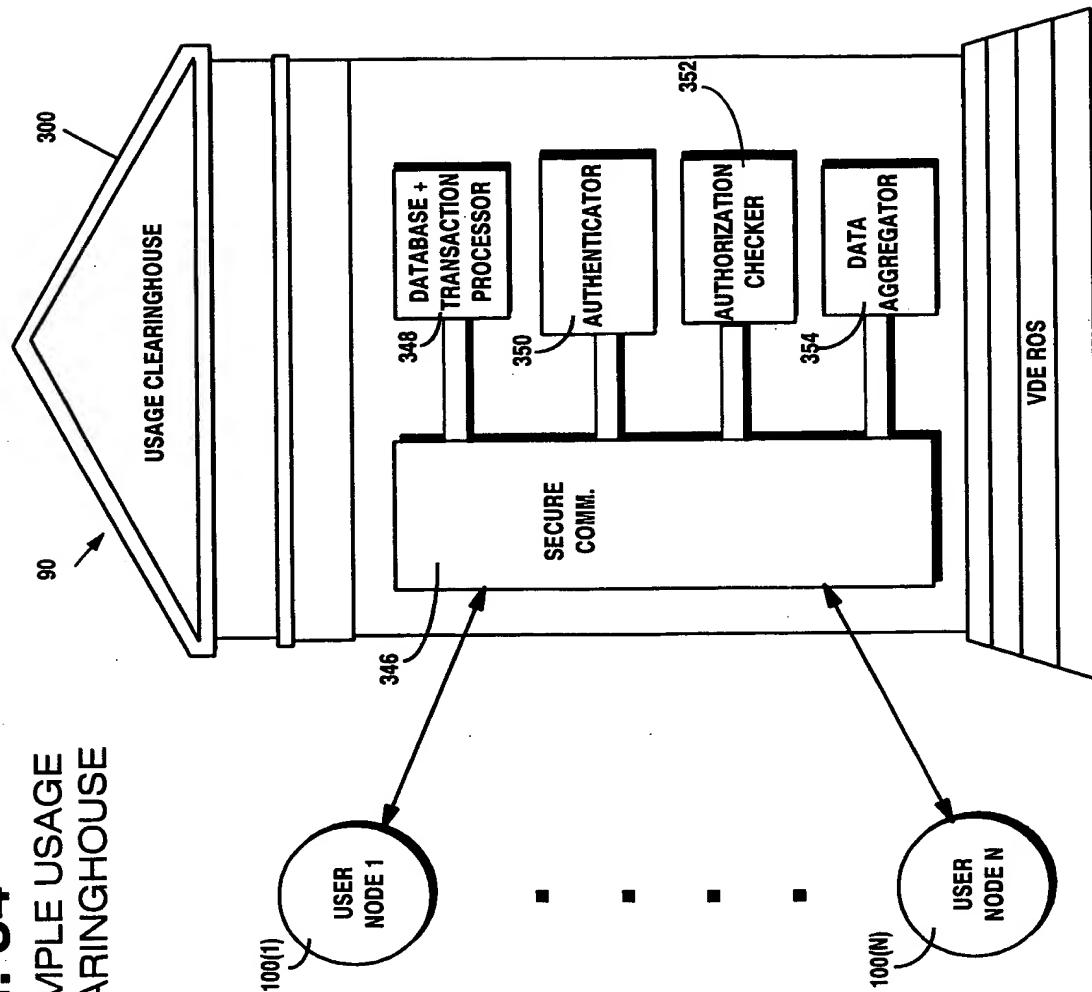
**FIG. 32 EXAMPLE FINANCIAL CLEARINGHOUSE ARRANGEMENT**



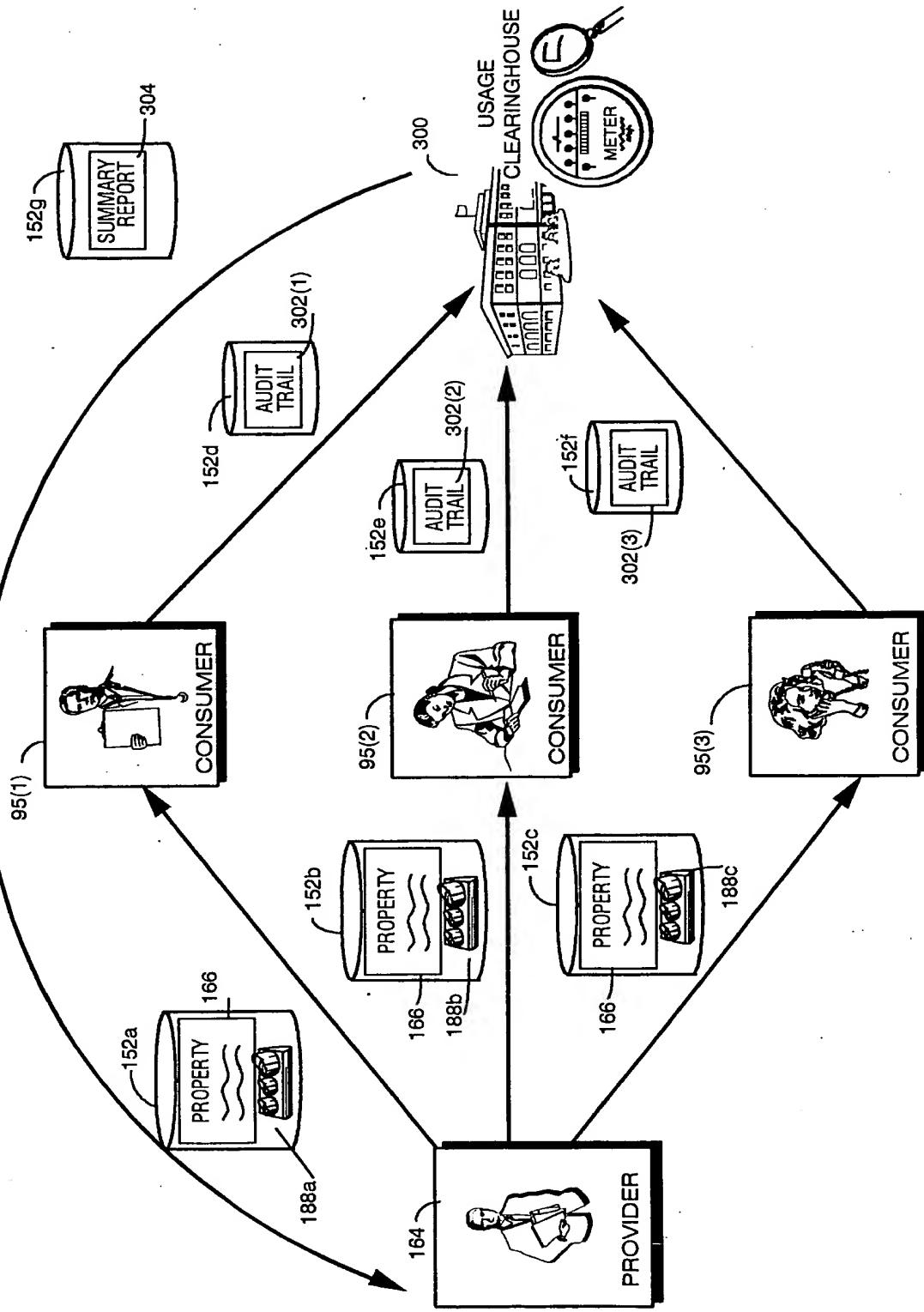
**FIG. 33**  
Example Usage  
Clearinghouse



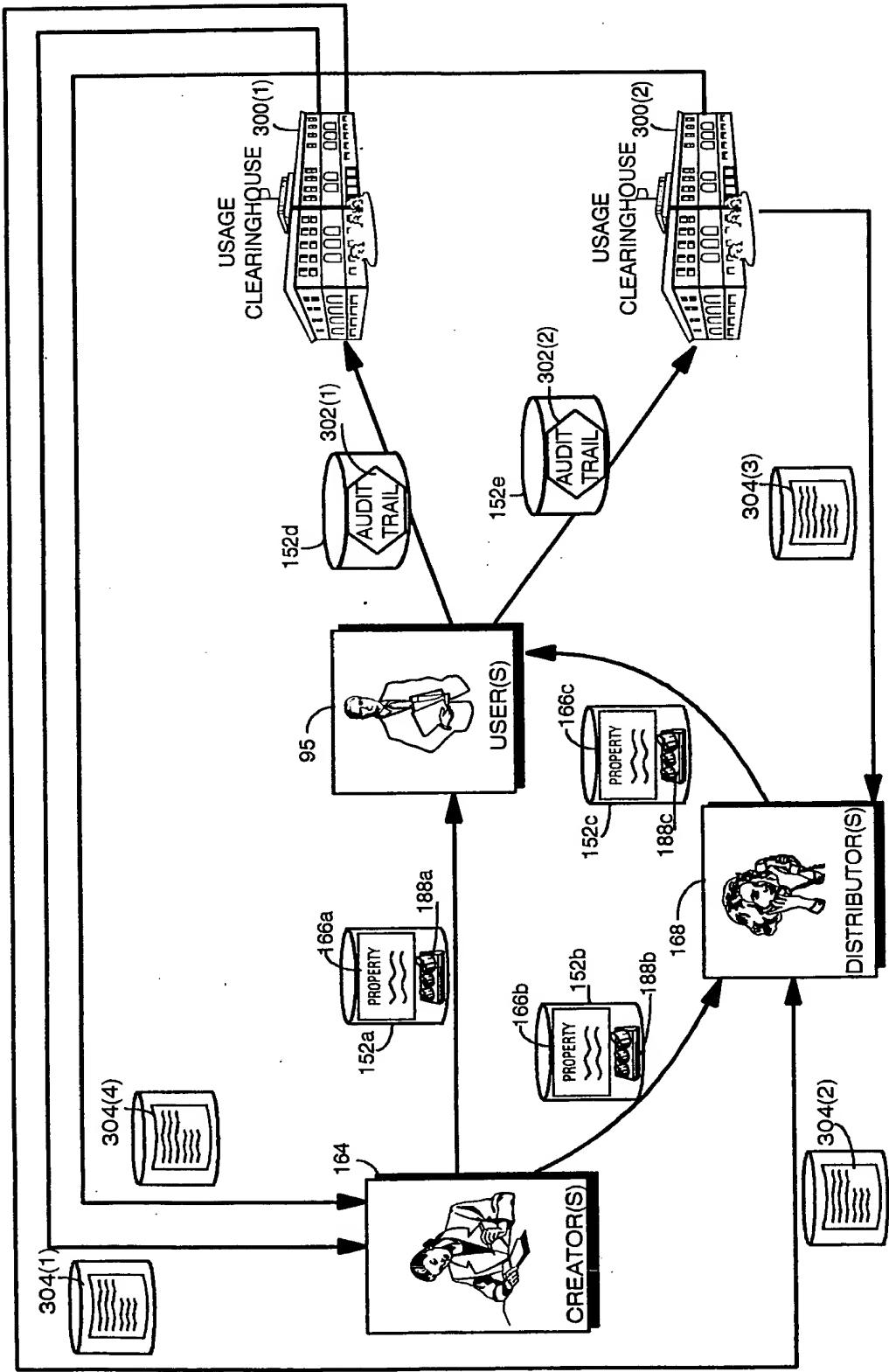
**FIG. 34**  
EXAMPLE USAGE  
CLEARINGHOUSE



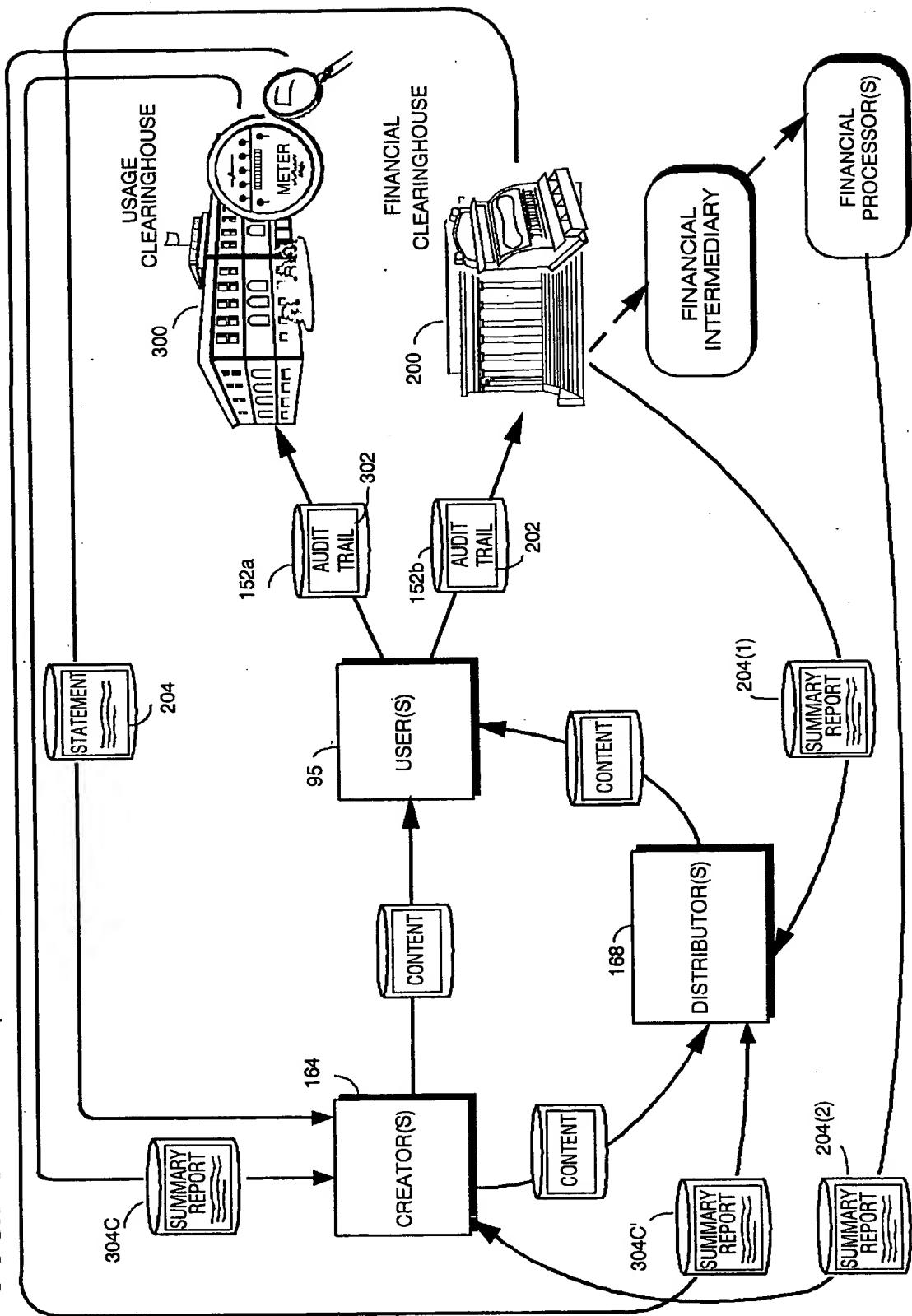
**FIG. 35** Example Usage Clearing Process



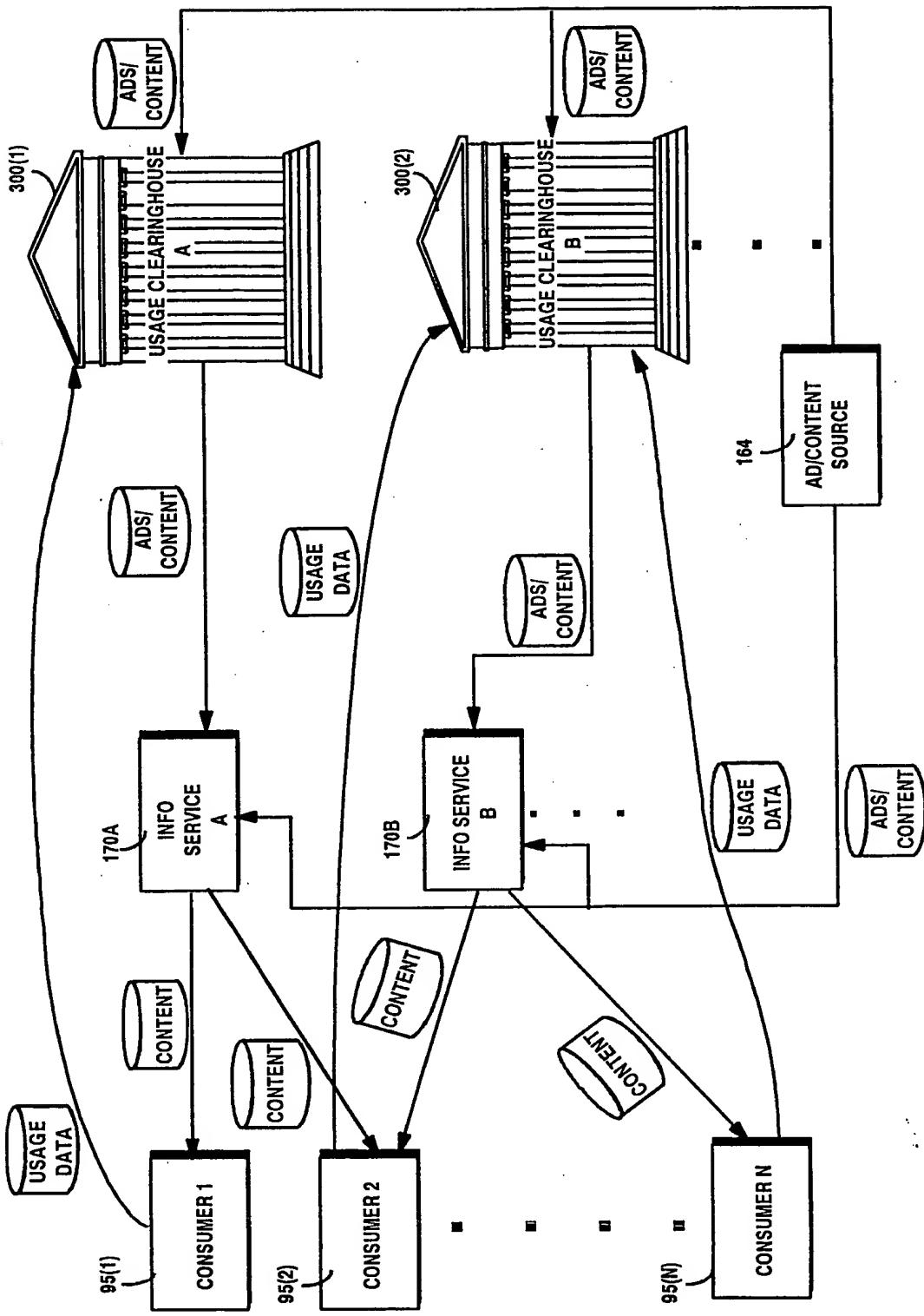
**FIG. 36** Example Usage Clearing Process



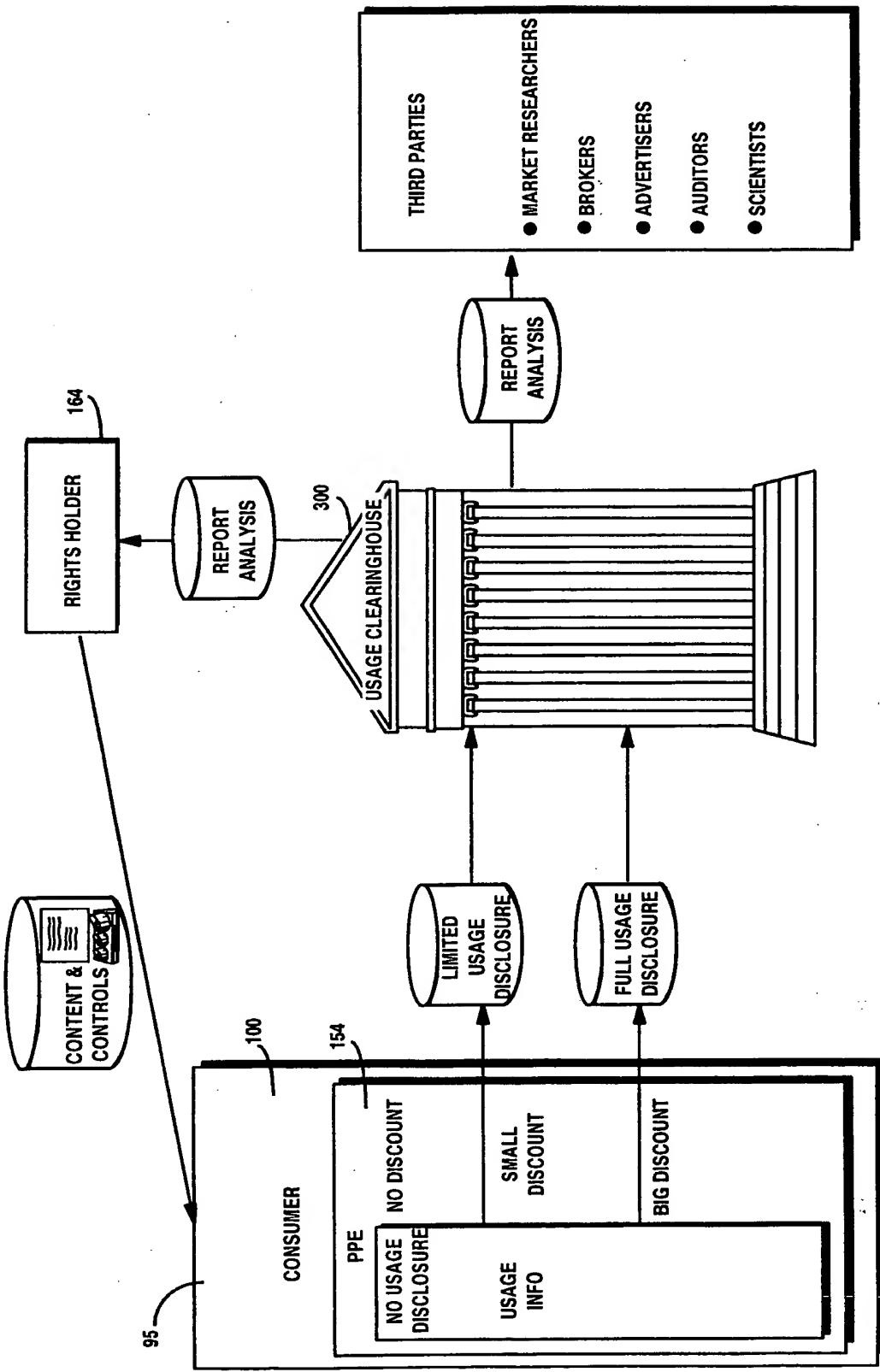
**FIG. 37** Example Financial & Usage Clearinghouse Process



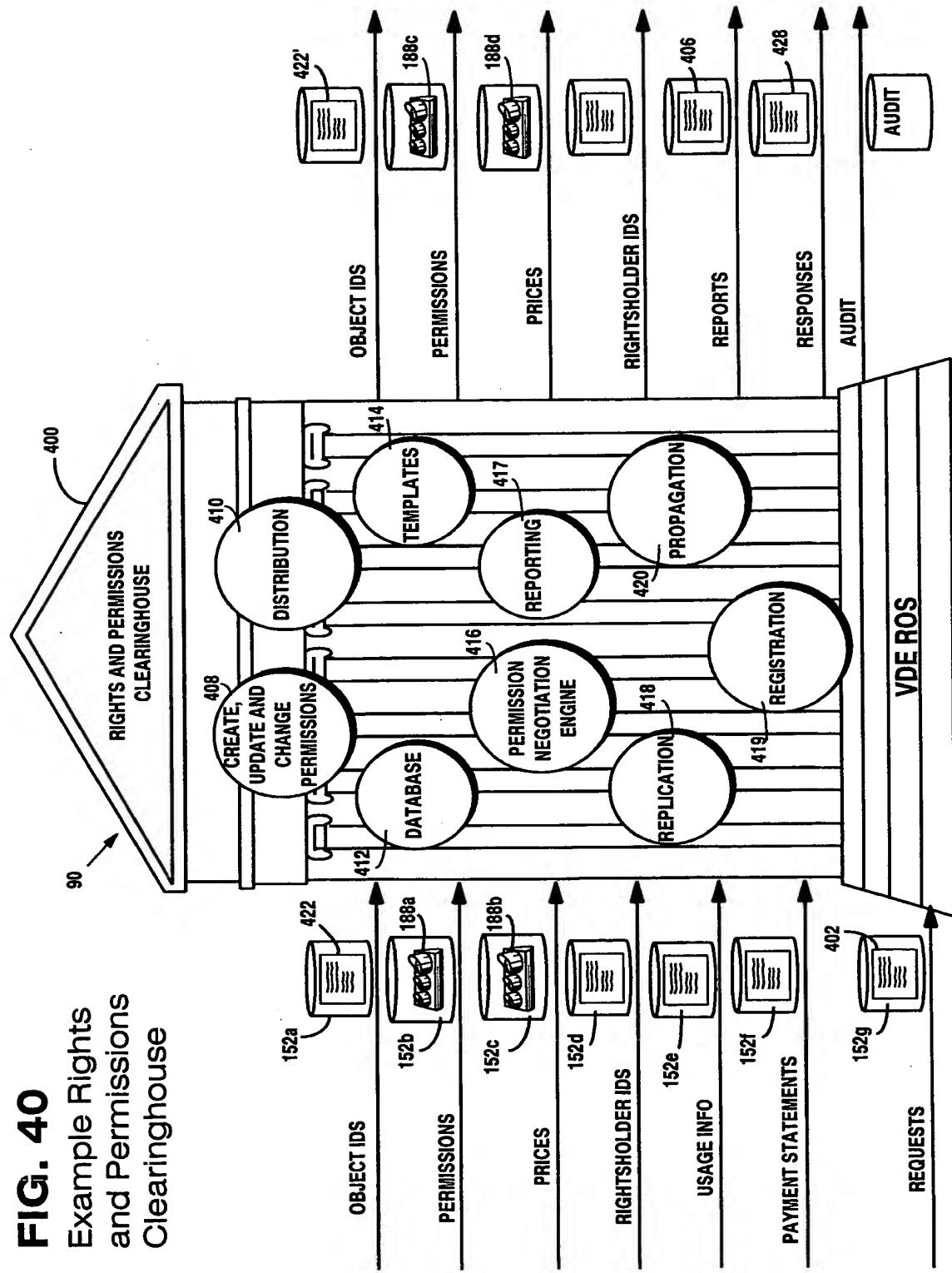
**FIG. 38** EXAMPLE USAGE CLEARINGHOUSE MEDIA PLACEMENT



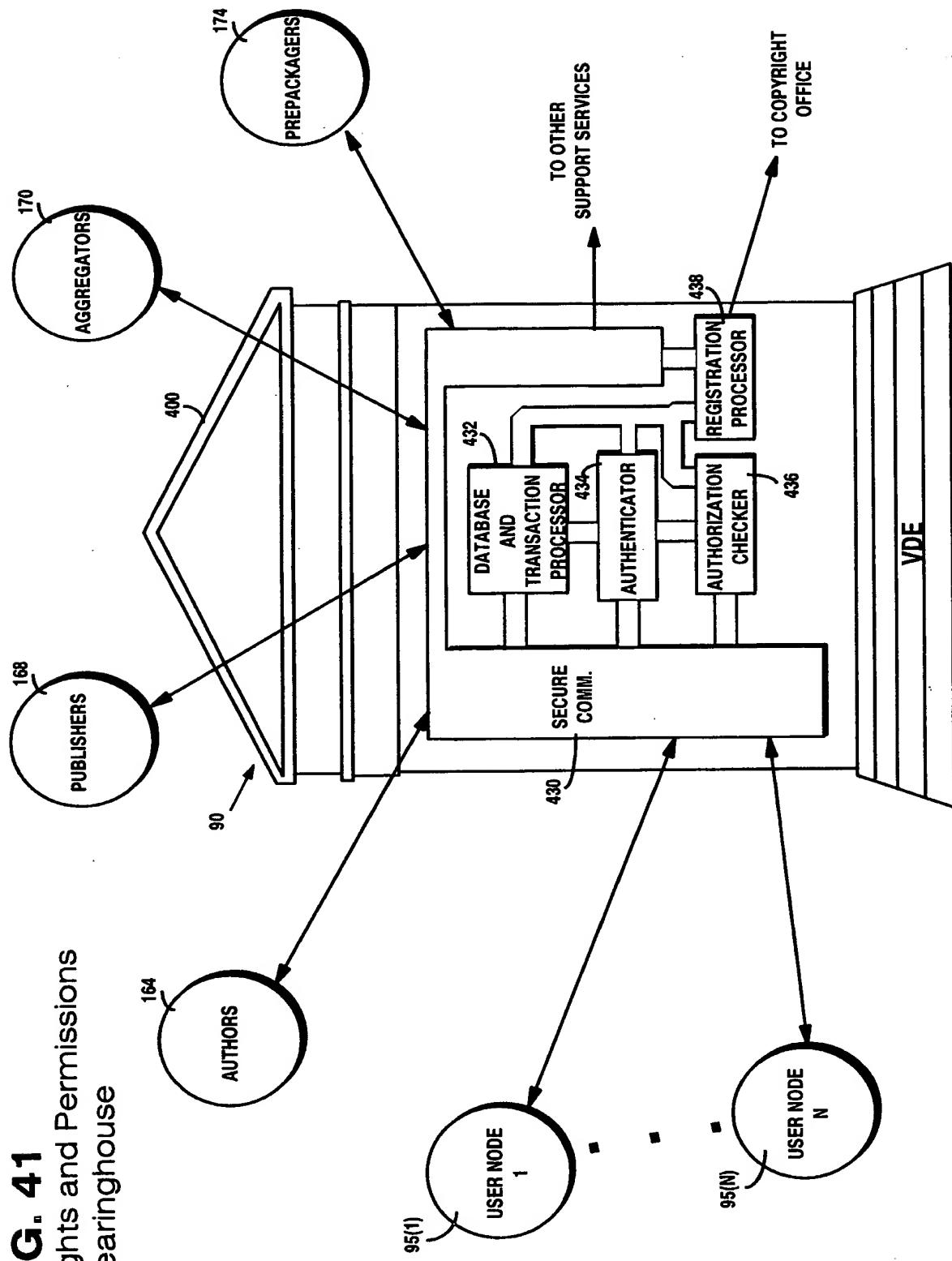
**FIG. 39**  
EXAMPLE USAGE CLEARINGHOUSE  
DISCOUNTS BASED ON DISCLOSURE



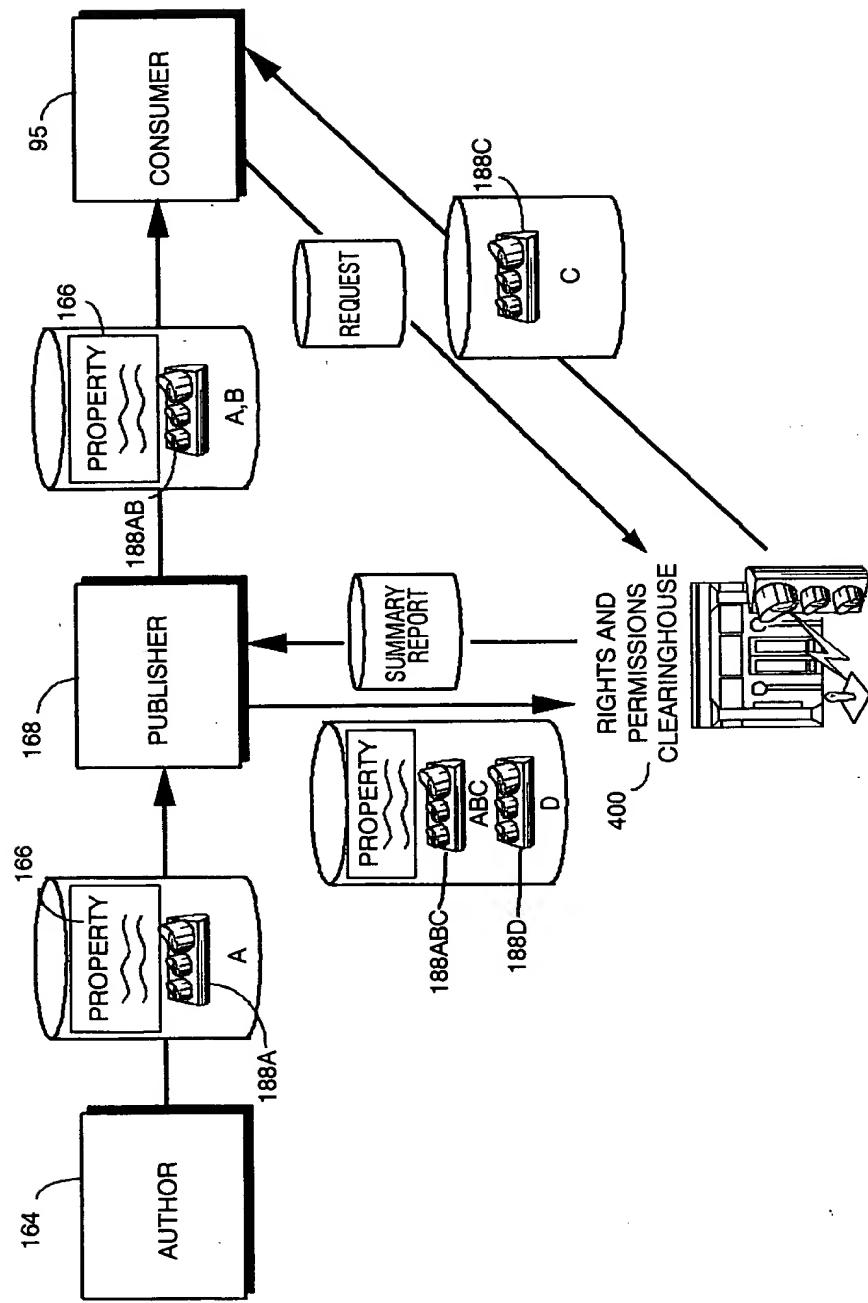
**FIG. 40**  
Example Rights  
and Permissions  
Clearinghouse

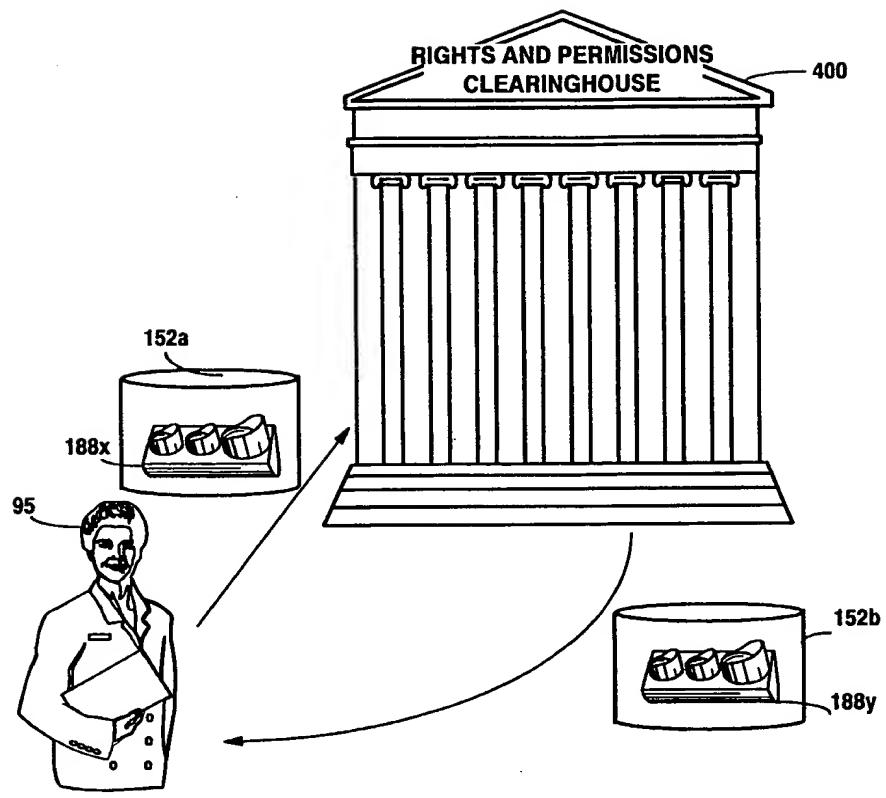


**FIG. 4-1**  
Rights and Permissions  
Clearinghouse



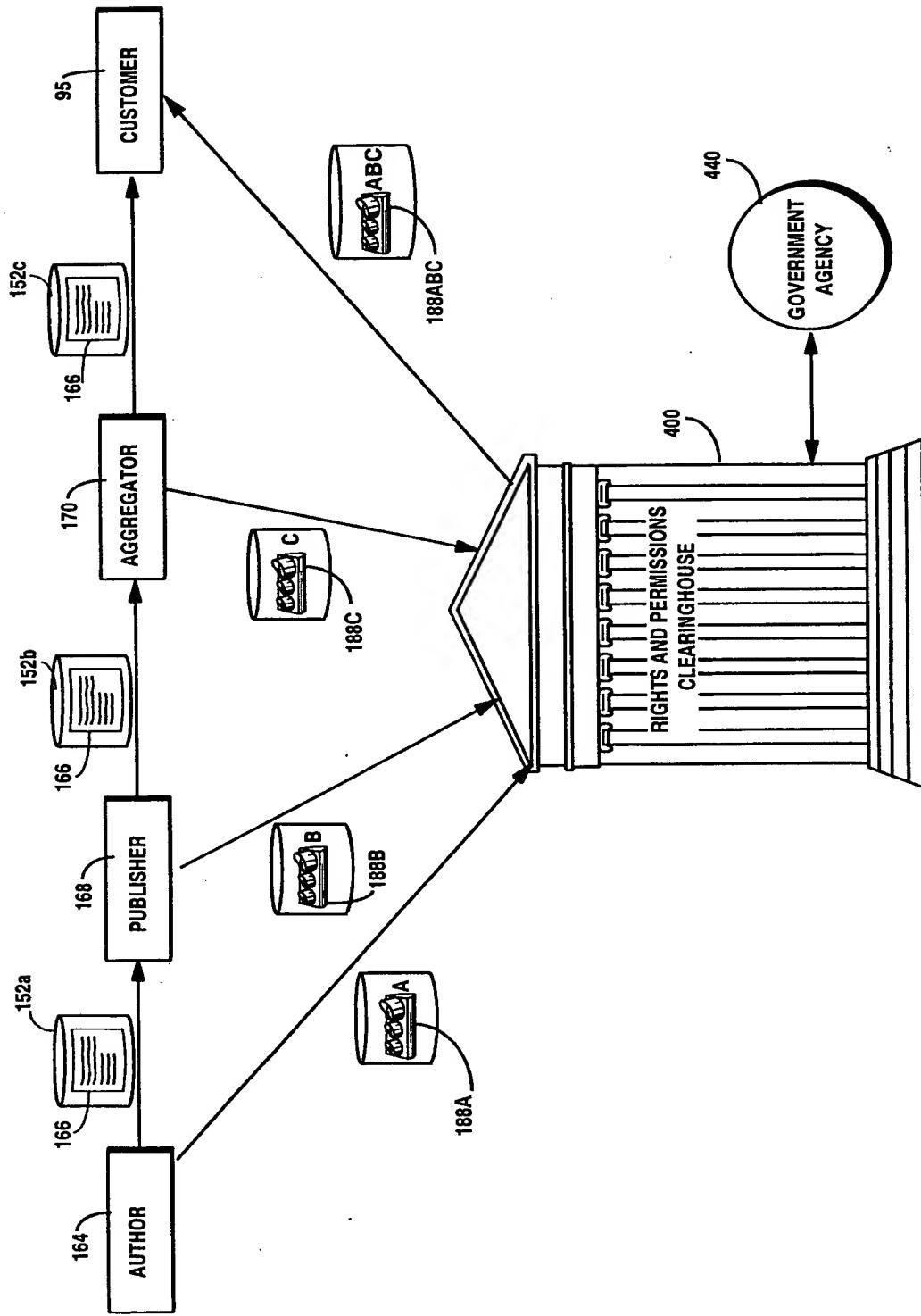
**FIG. 42** Example Rights & Permissions Clearinghouse Process

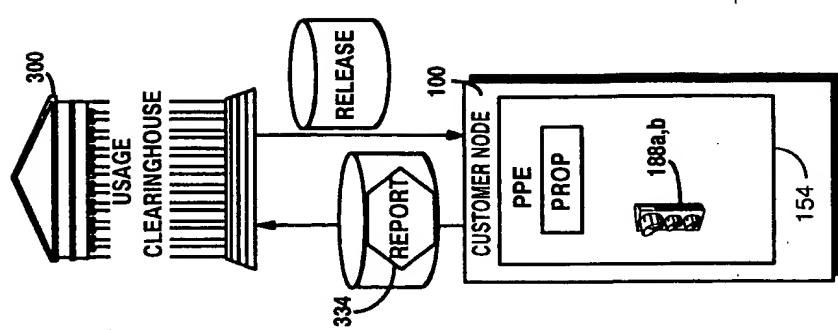




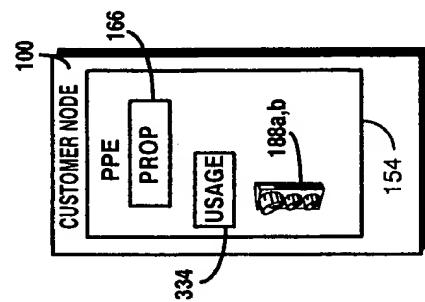
**FIG. 42A**  
Consumer Registers Control Set  
To Request Updates

**FIG. 43 EXAMPLE RIGHTS AND PERMISSIONS VALUE CHAIN**

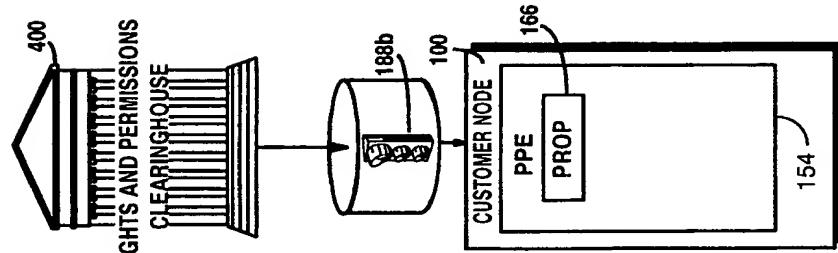




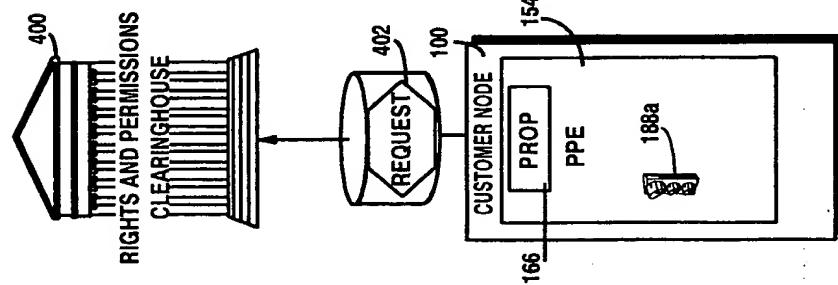
**FIG. 44E**  
Customer  
Node Reports  
Aspects Of  
Usage



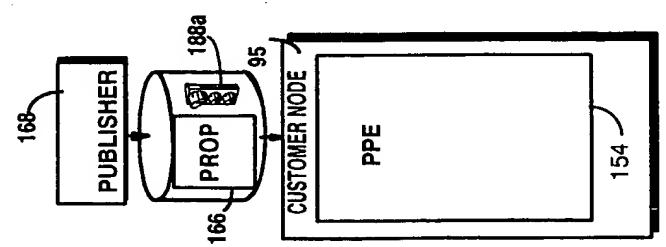
**FIG. 44D**  
Customer  
Uses Property  
In Accordance  
With Rights



**FIG. 44C**  
Rights and  
Permissions  
Clearinghouse  
Provides Rights  
To Customer



**FIG. 44B**  
Customer  
Requests Rights  
To Use Property

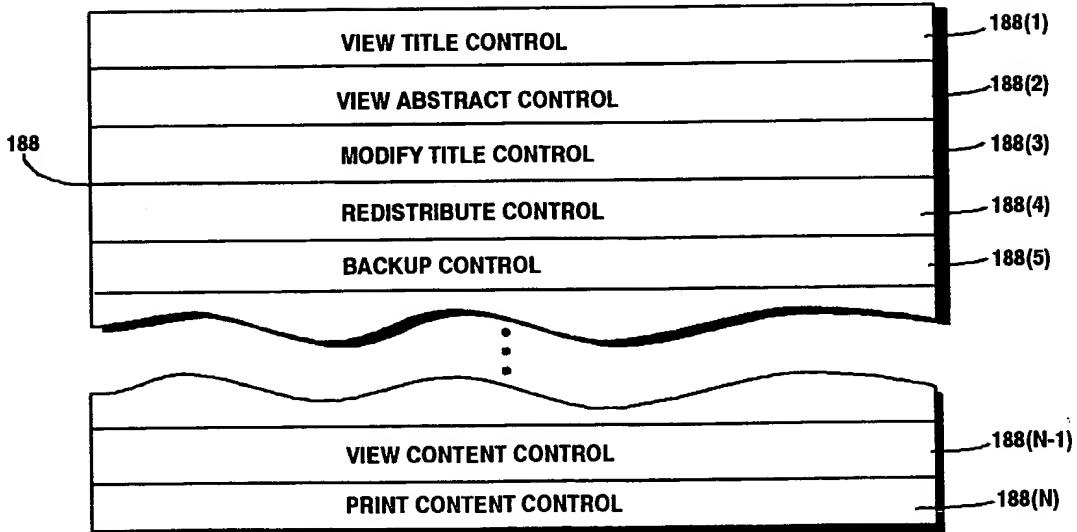


**FIG. 44A**  
Customer  
Receives  
Property

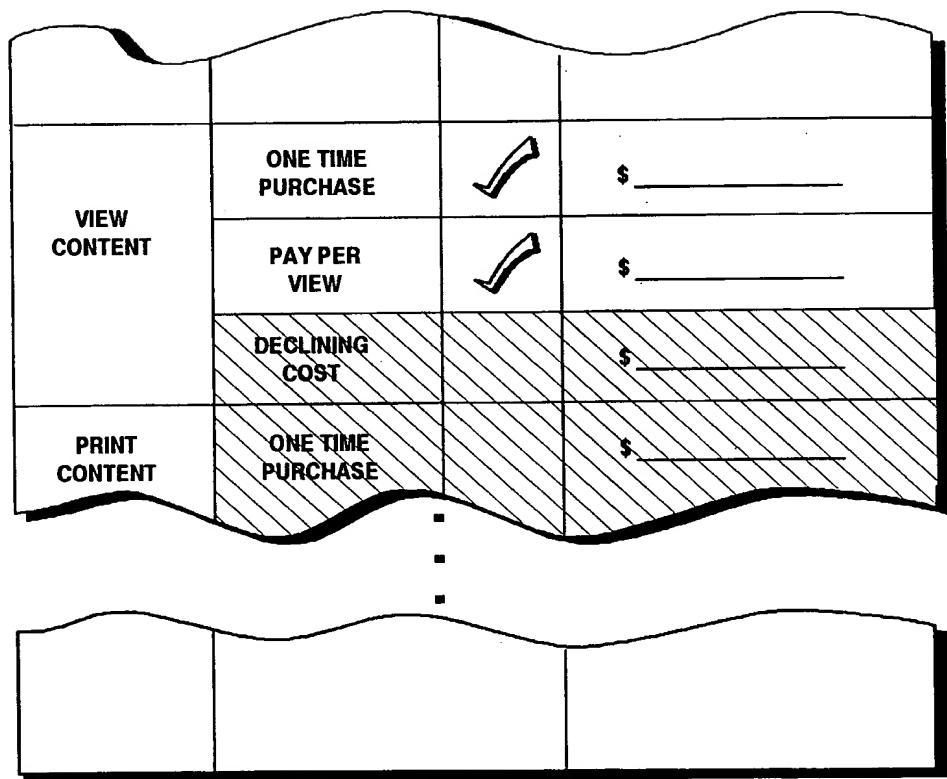
PERMISSION TYPE

ACTION	UNCOND.	COND. ON CONTENT	UNCOND.	PRICING MODELS
	PERMIT	PAYMENT	BASED	
VIEW TITLE	✓			... ... ... ... ... ...
VIEW ABSTRACT	✓			
MODIFY TITLE				
REDIS-TRIBUTE			✓	
BACK UP		✓		
VIEW CONTENT		✓		ONE TIME PURCH. PAY PER ACTION DECL. COST ...
PRINT CONTENT		✓		ONE TIME PURCH. PAY PER PRINT DECL. COST ...

**FIG. 45A** EXAMPLE RIGHTS TEMPLATE

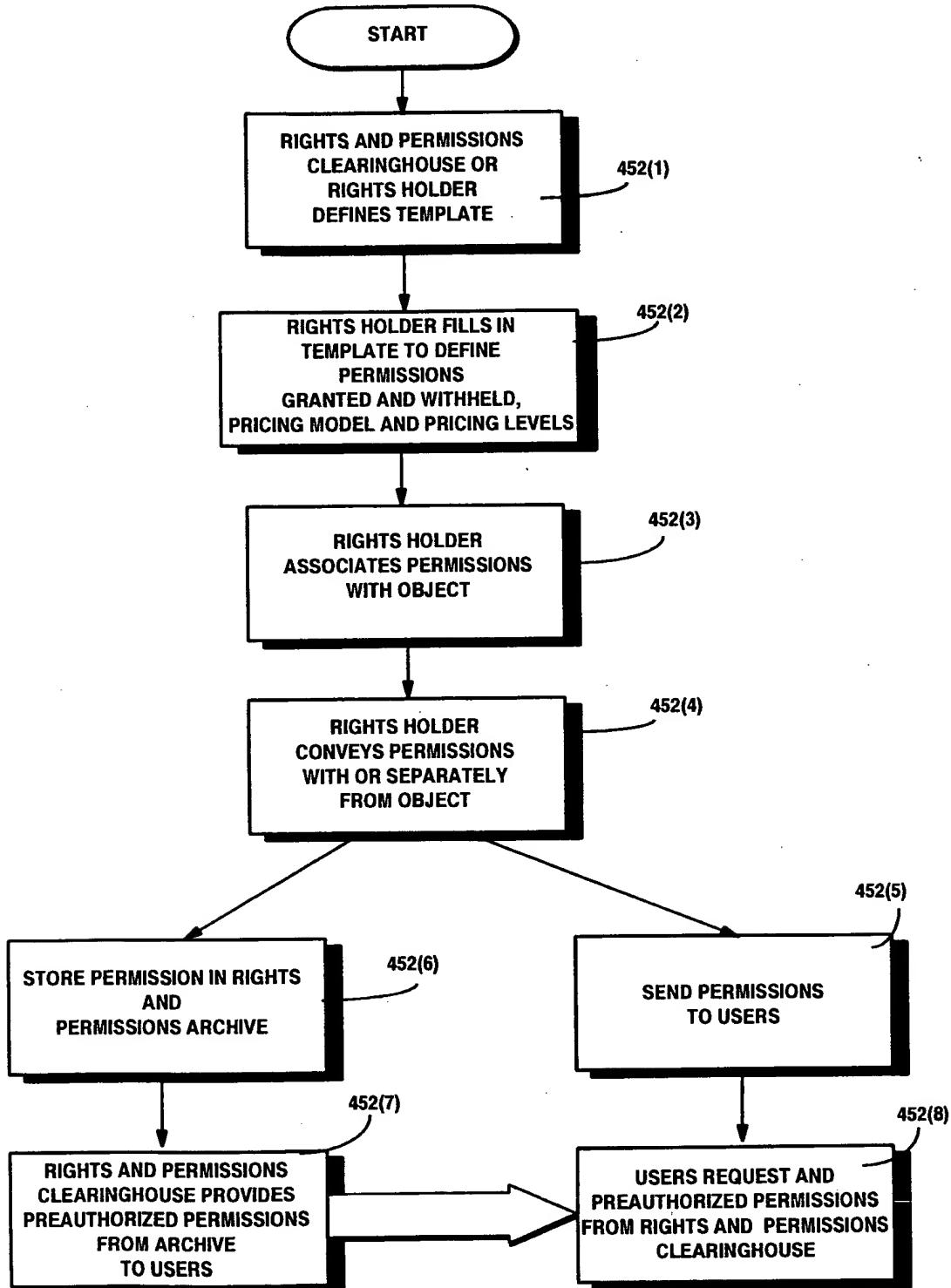


**FIG. 45C** EXAMPLE CONTROL SET

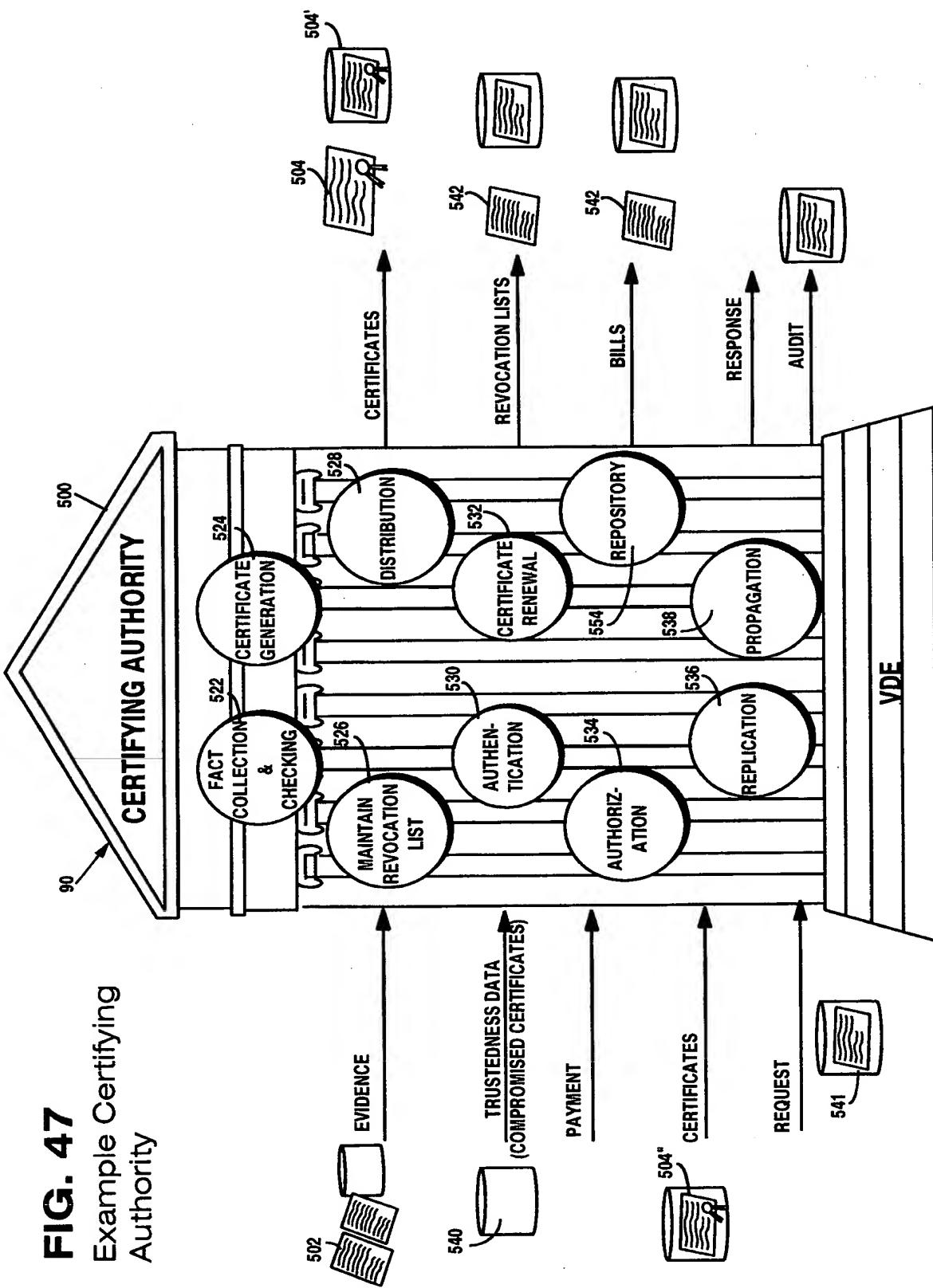


**FIG. 45B** PRICING MODELS AND LEVELS

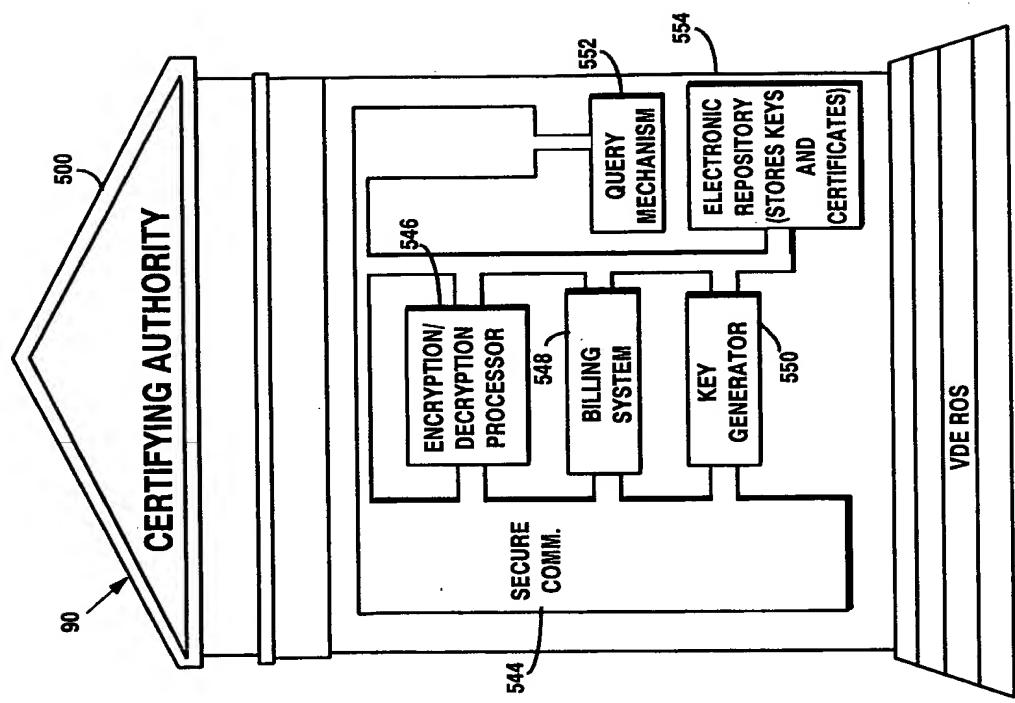
**FIG. 46** Example Rights And Permissions Clearing Process



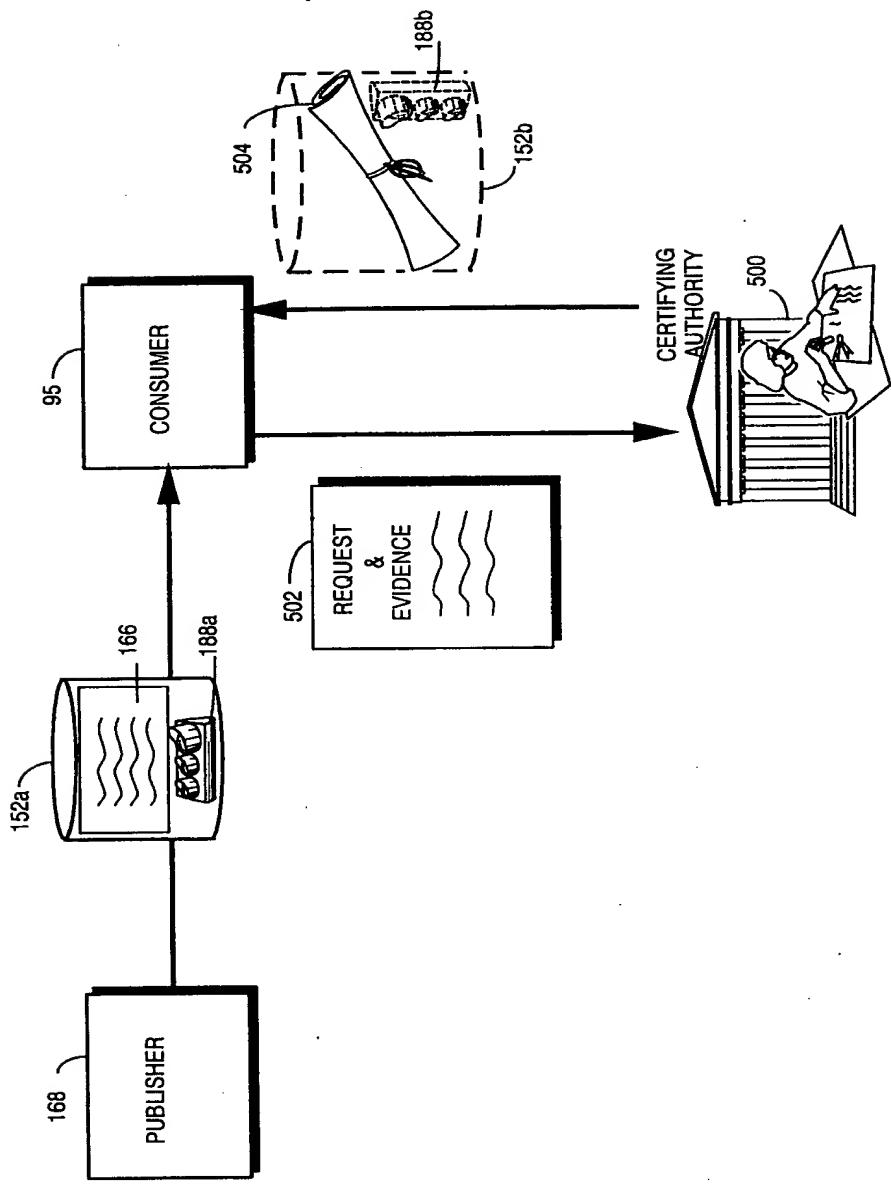
**FIG. 47**  
Example Certifying Authority  
Authority

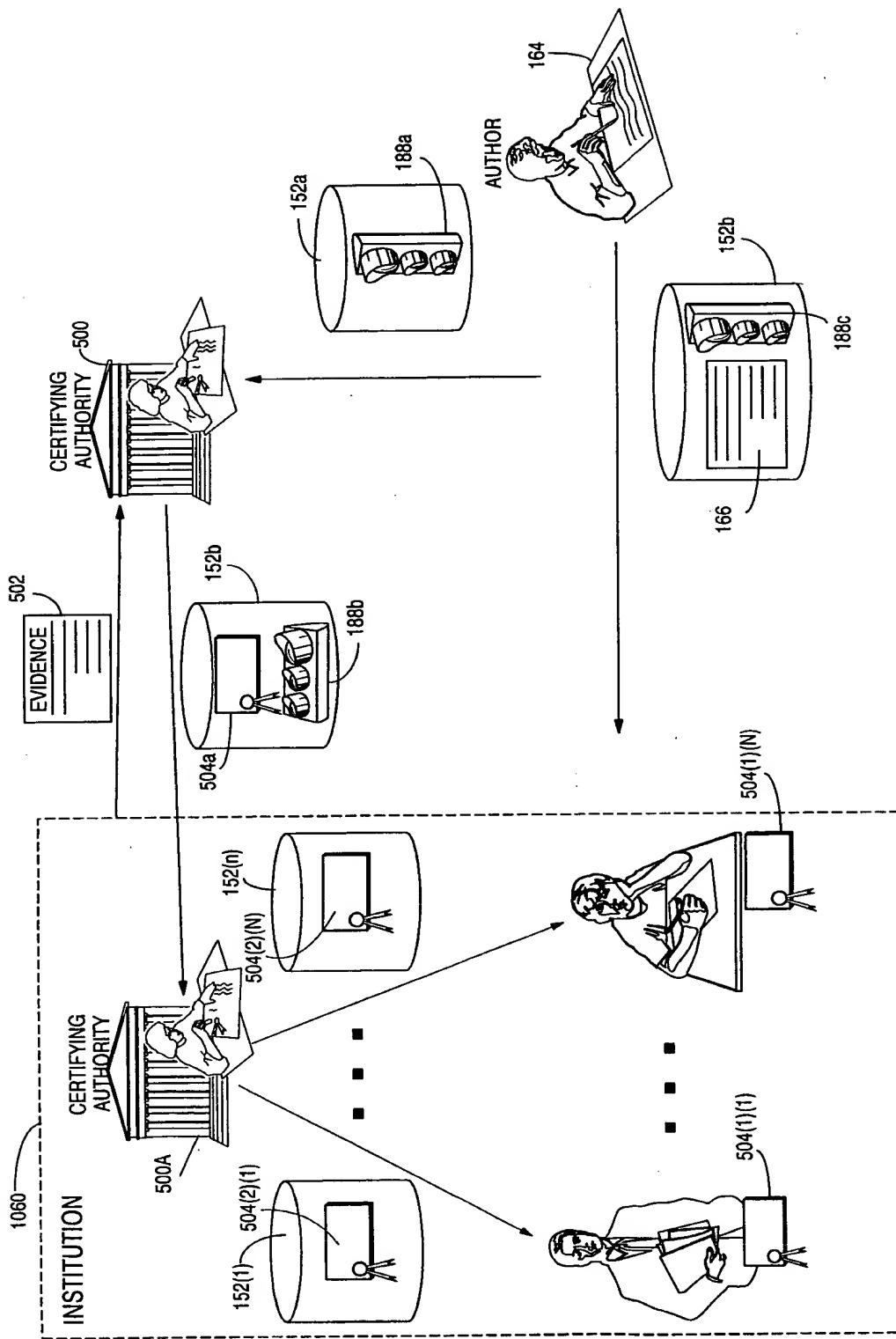


**FIG. 48**  
Example Certifying  
Authority



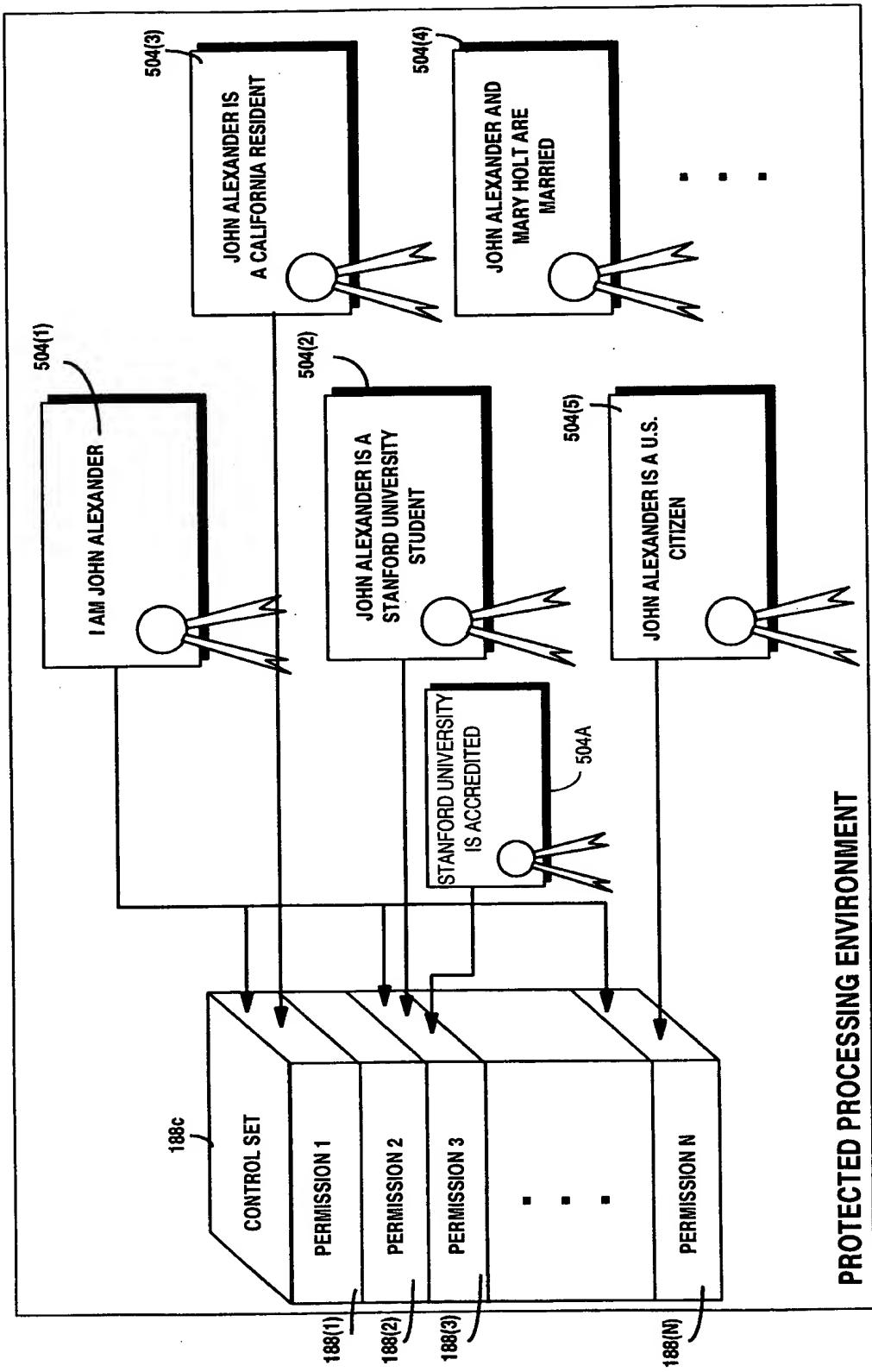
**FIG. 49** Example Certifying Process





**FIG. 50** Distributed Certificate Issuance

**FIG. 50A** Example Control Set Using Certificates



504(1)	NAME	DOB	...	EXP. DATE	560(3) ID HASH OF PK	560(4)	PUBLIC KEY	560(6)	CHECK SUM
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**FIG. 51A**

504(5)	PROFESSIONAL CREDENTIAL	560(7)	560(3)	560(5)	560(6)	560(6)	560(5)	560(6)	560(6)
			EXPIRATION DATE	...	ID	HASH OF PK	... ID	CHECK SUM	

**FIG. 51B**

504(8)	STREET ADDRESS	CITY	STATE/ PROVINCE	COUNTRY	...	560(6)	CHECK SUM
--------	----------------	------	--------------------	---------	-----	--------	-----------

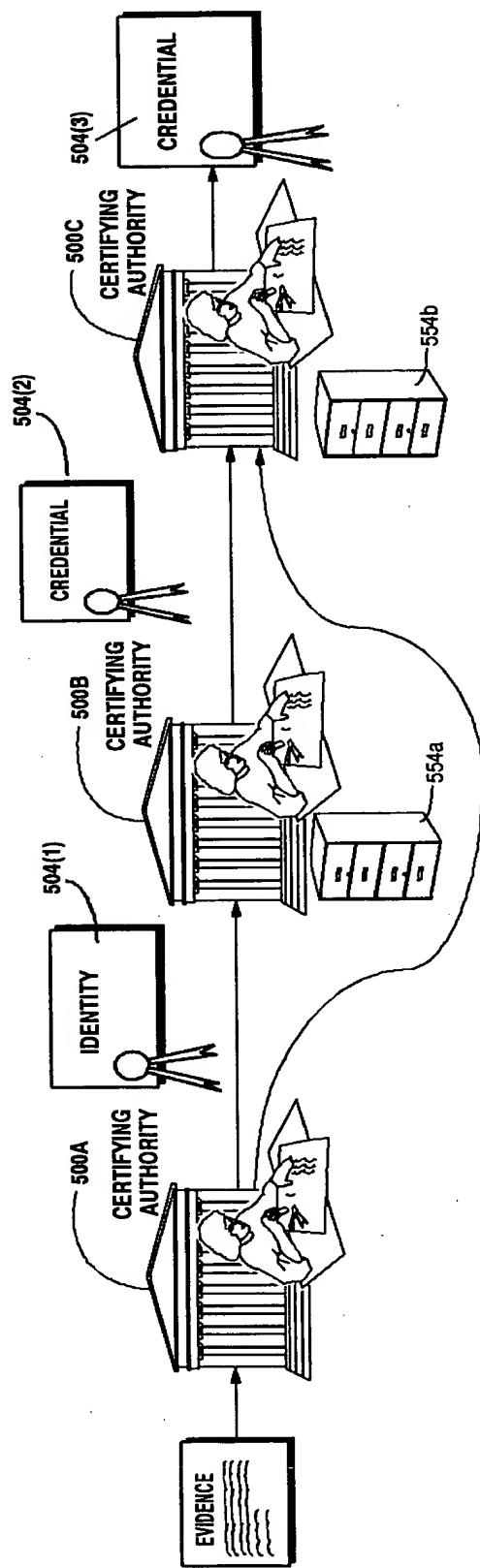
**FIG. 51C**

504(9)	STUDENT CREDENTIAL	UNIVERSITY	STUDENT ID	EXP. DATE	...	560(5)	560(6)	560(6)
					...	ID	HASH OF PK	CHECK SUM

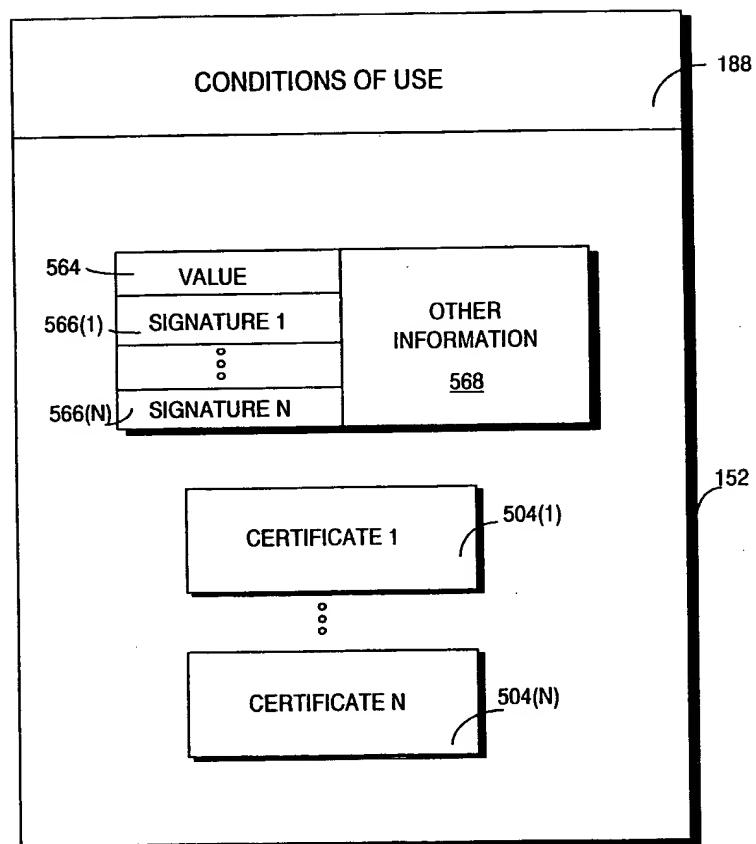
**FIG. 51D**

Example Digital Certificates

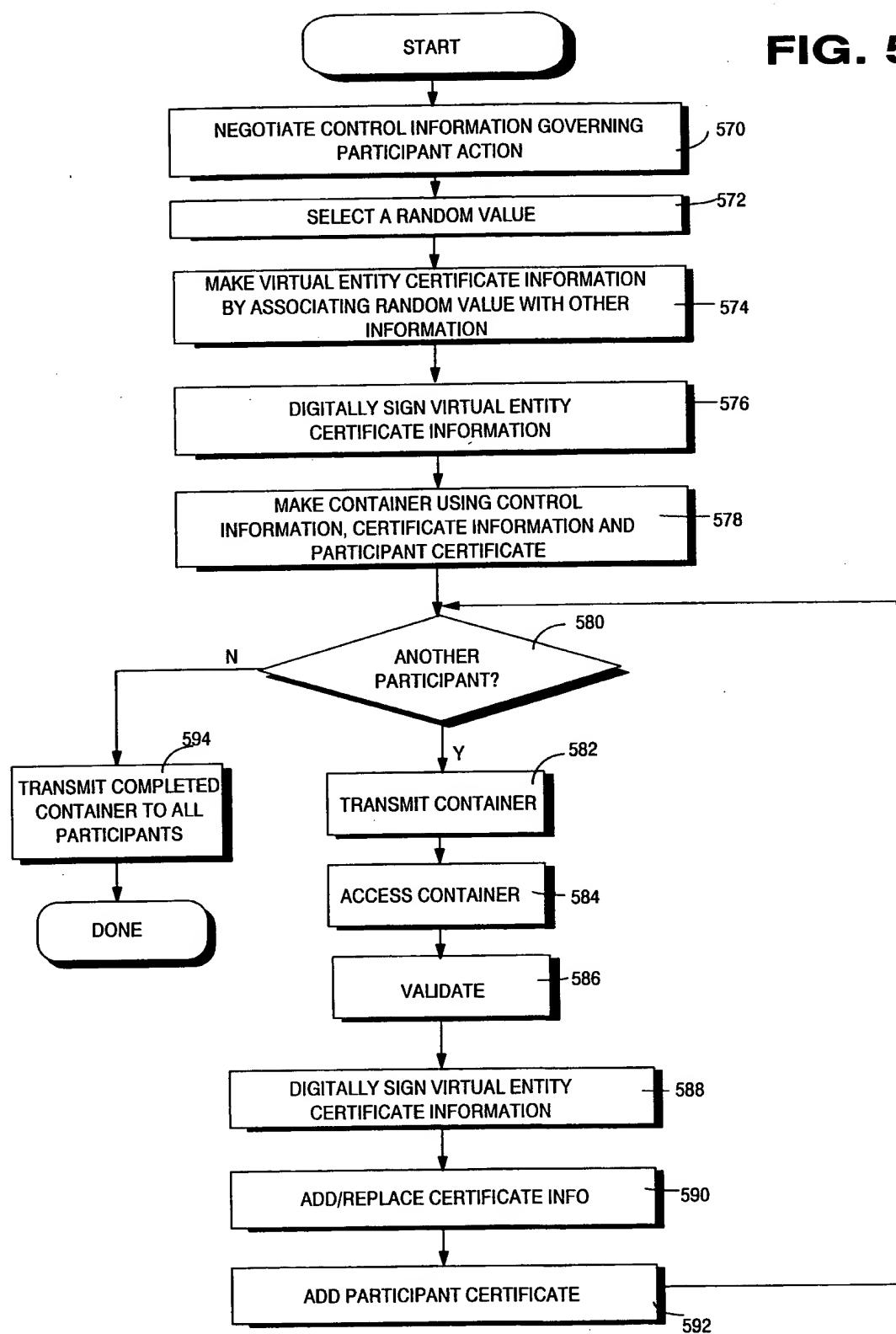
**FIG. 51E** Generating Certificates Based On Other Certificates



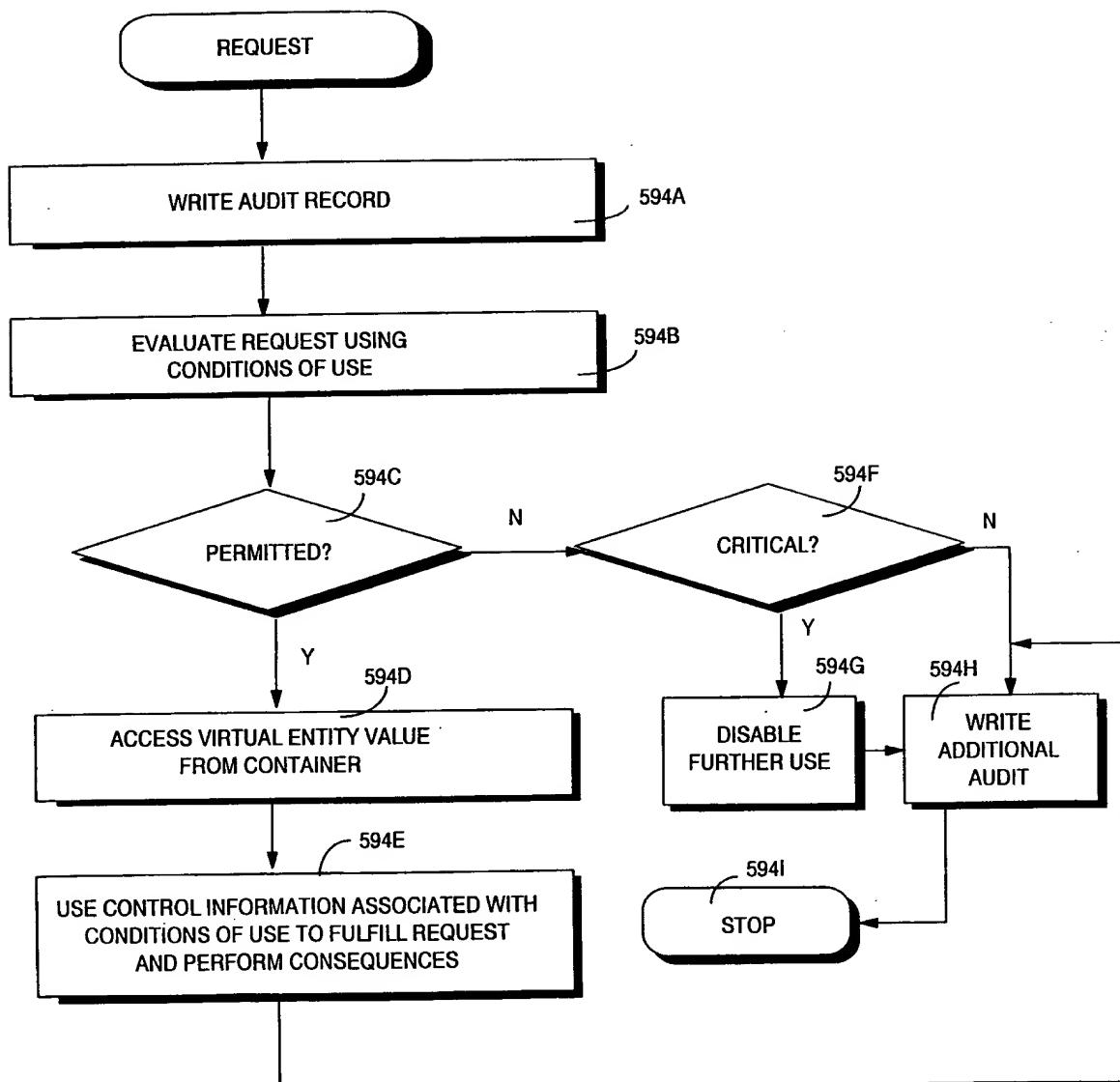
**FIG. 51F**



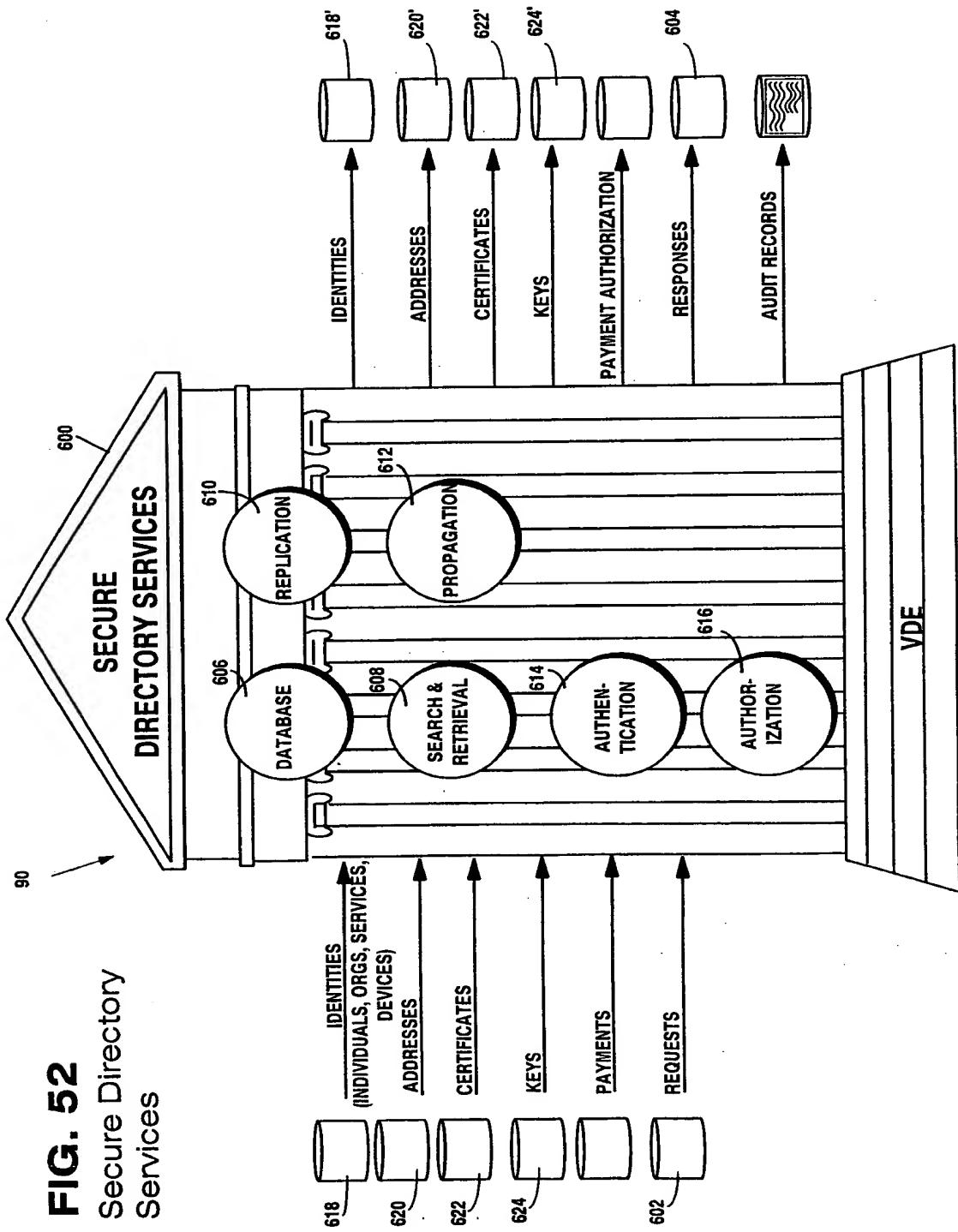
**FIG. 51G**



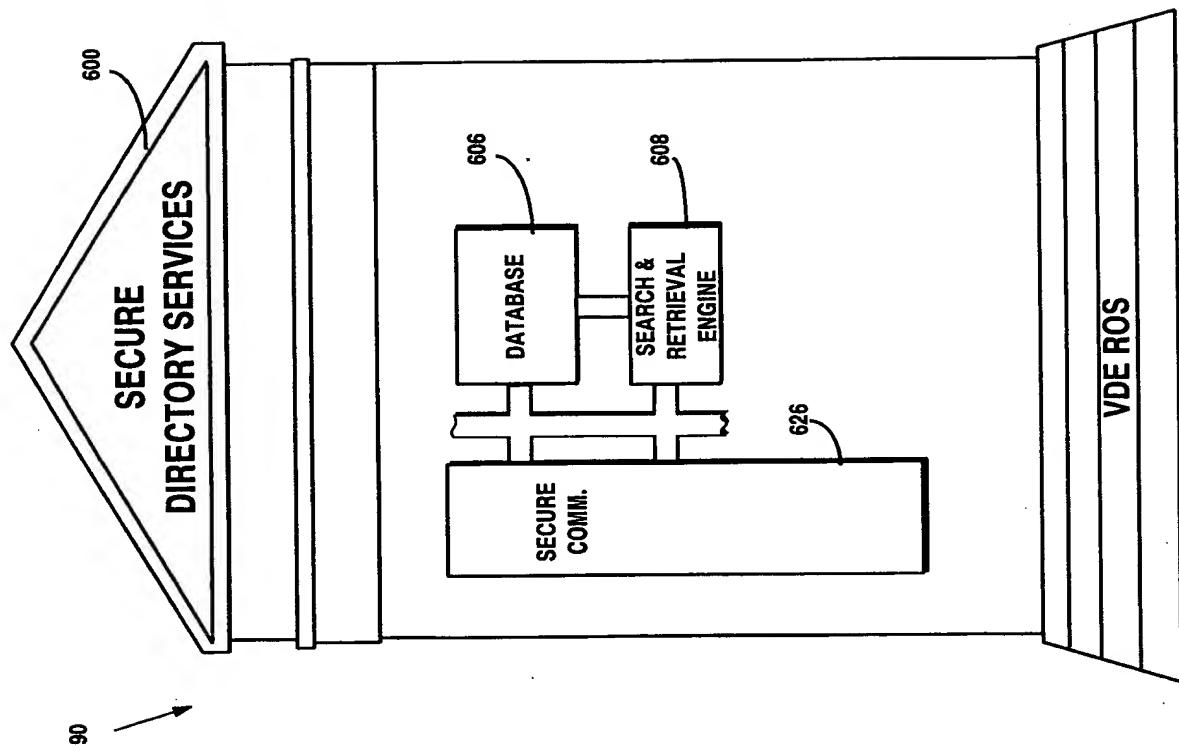
**FIG. 51H**



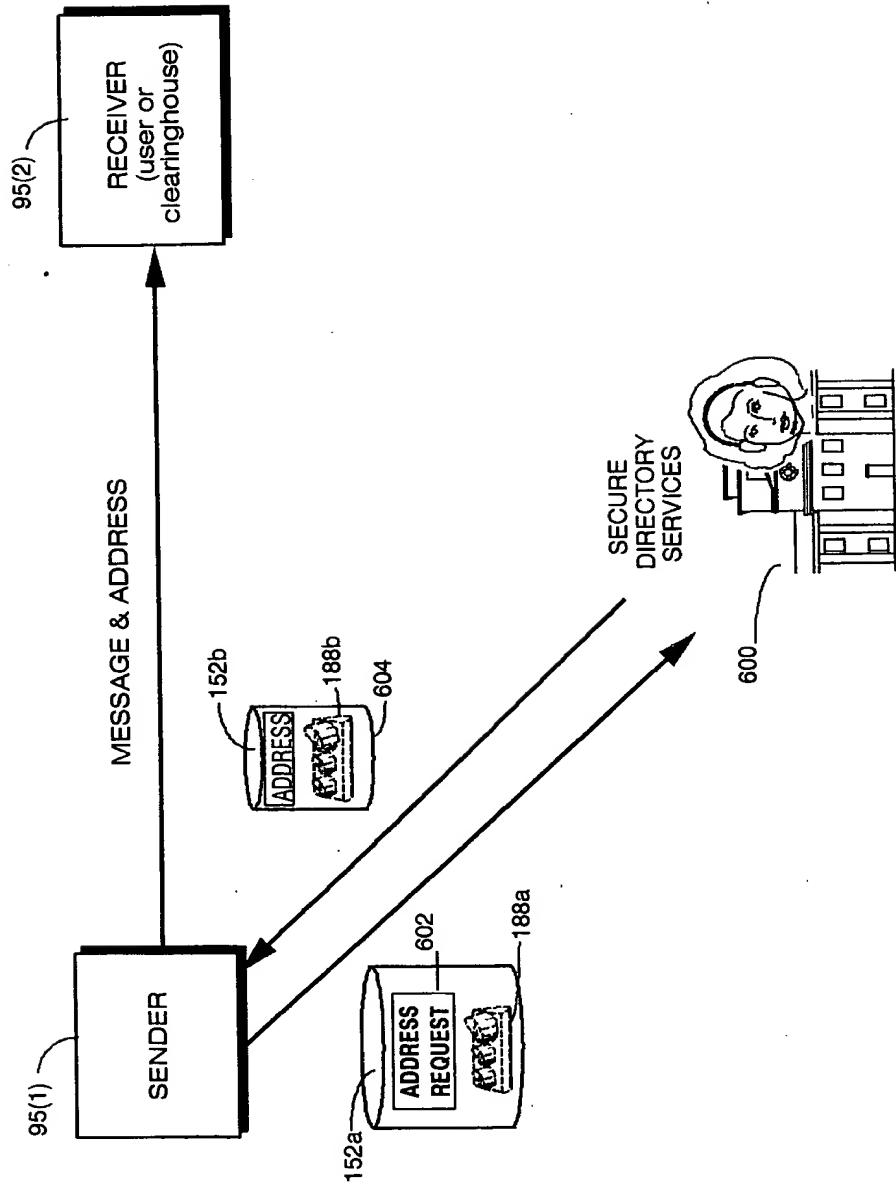
**FIG. 52**  
Secure Directory  
Services



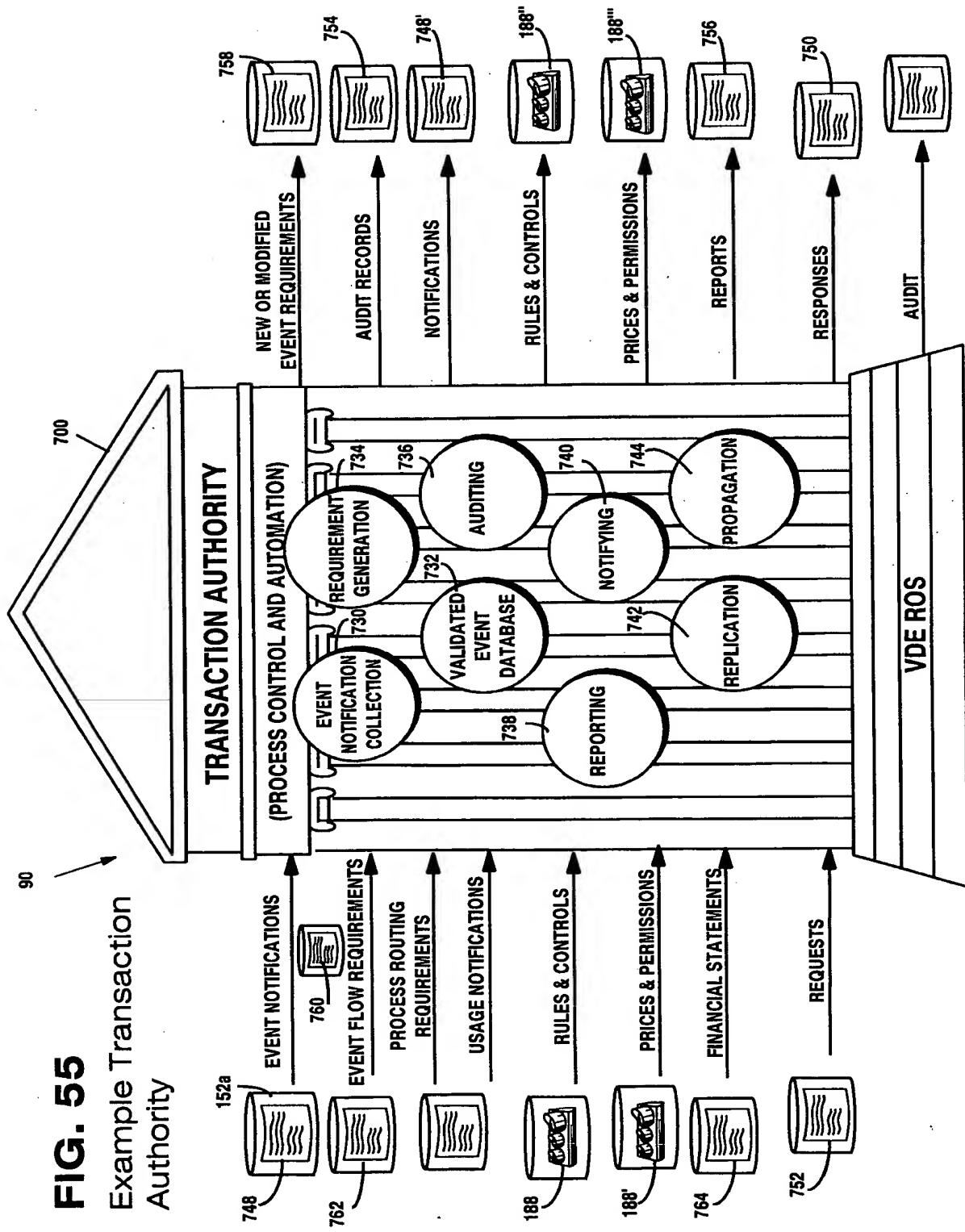
**FIG. 53**  
Example Secure  
Directory Services



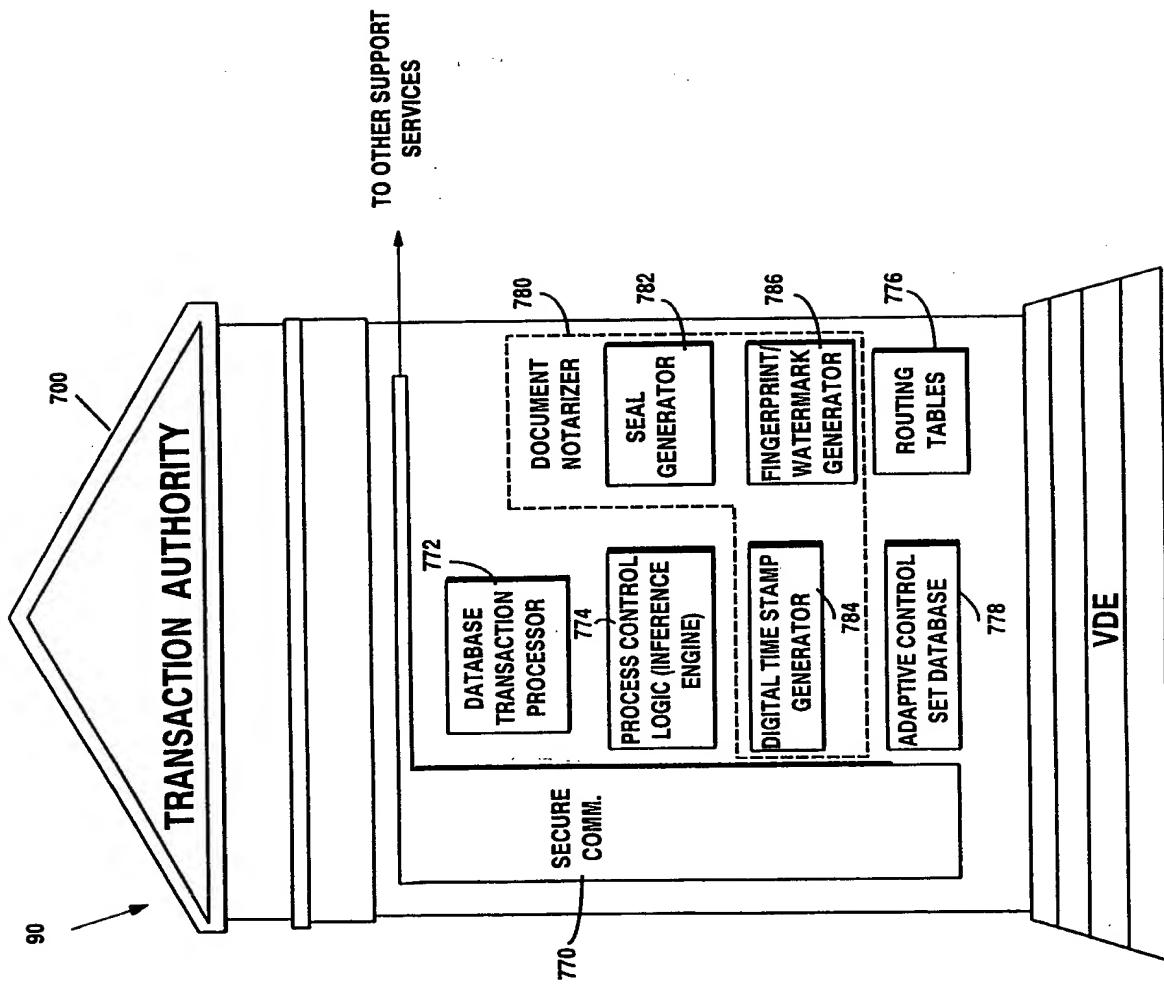
**FIG. 54** Example Secure Directory Service Process

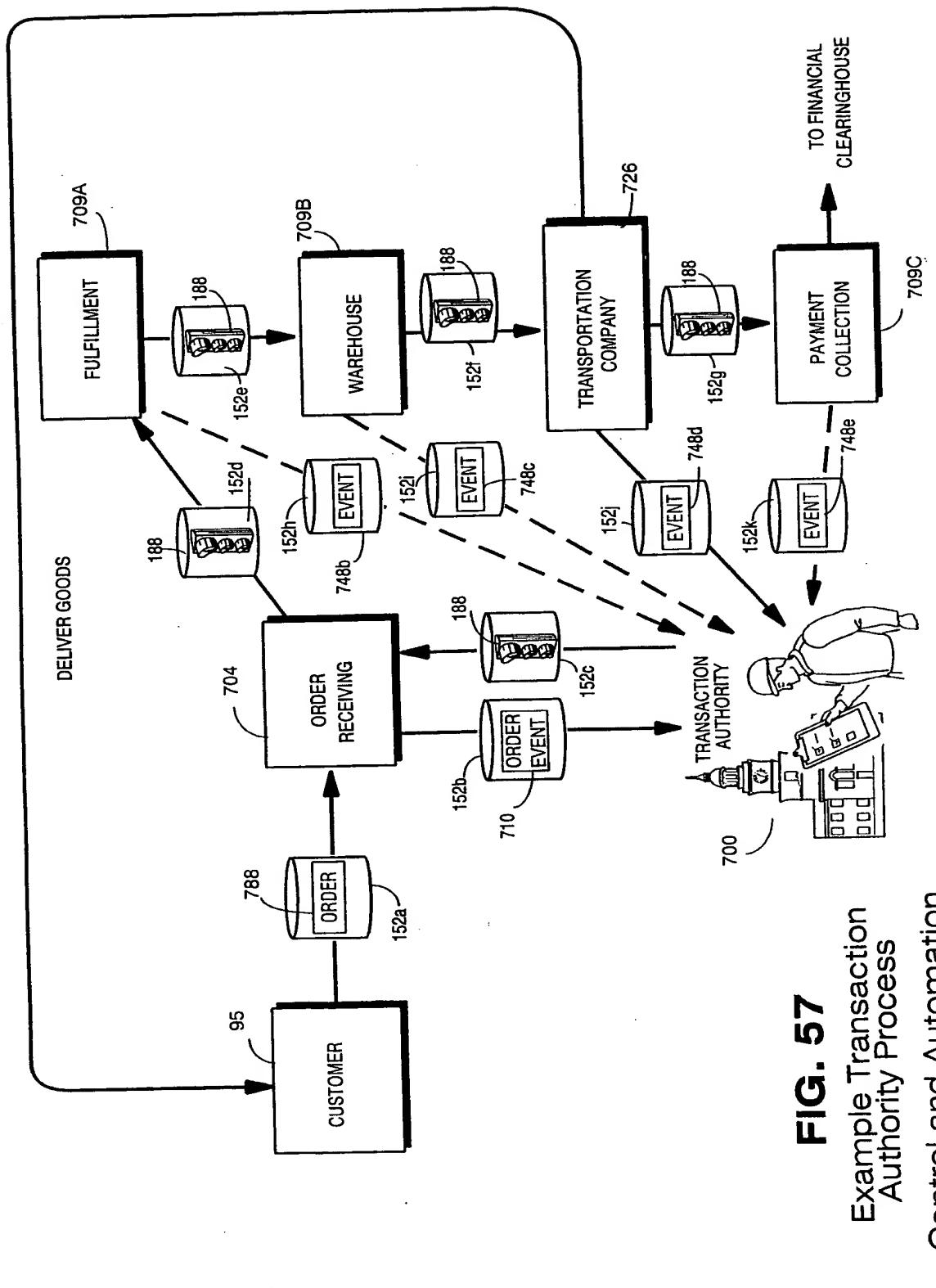


**FIG. 55**  
Example Transaction Authority



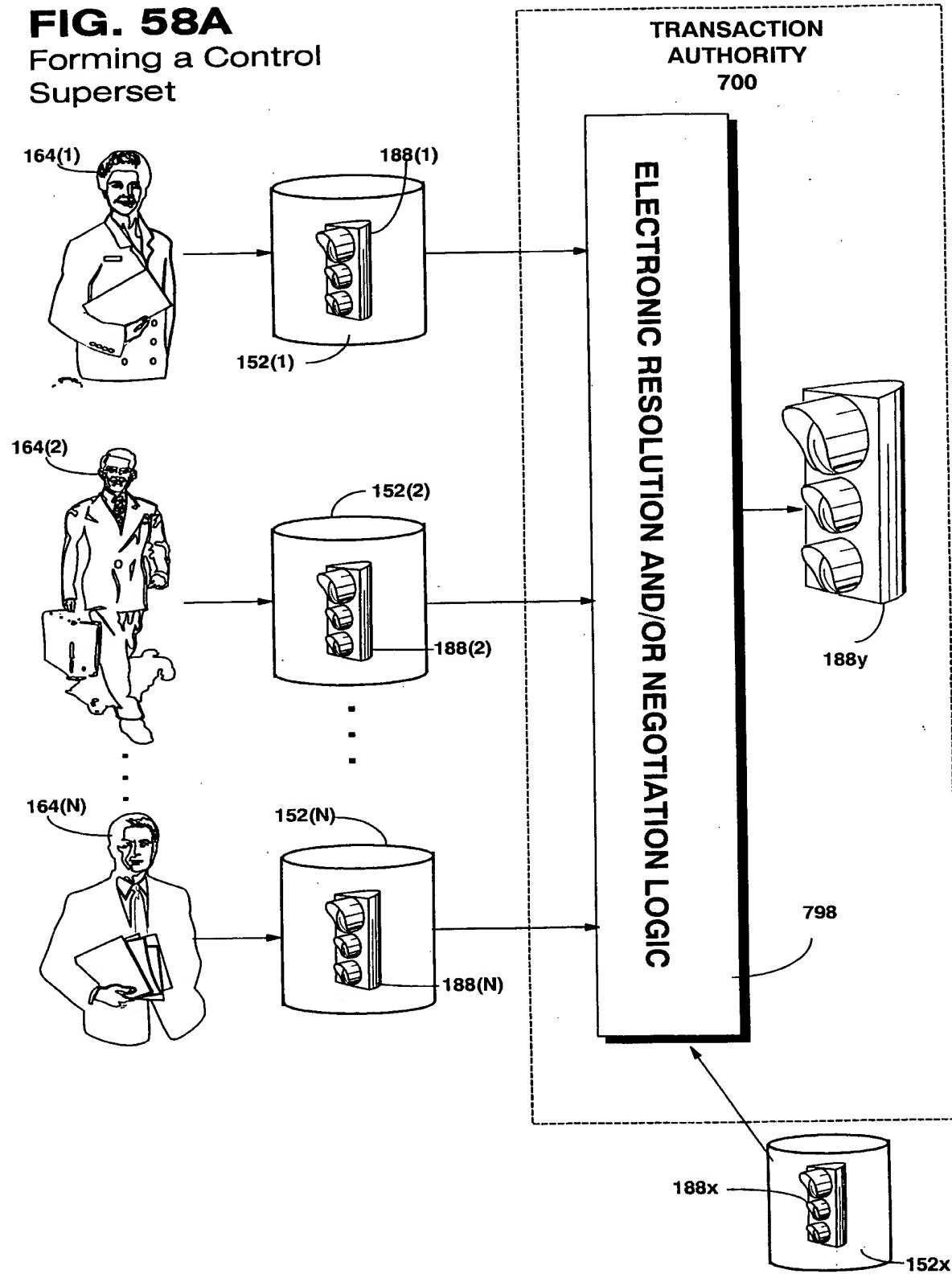
## **FIG. 56** Example Transaction Authority



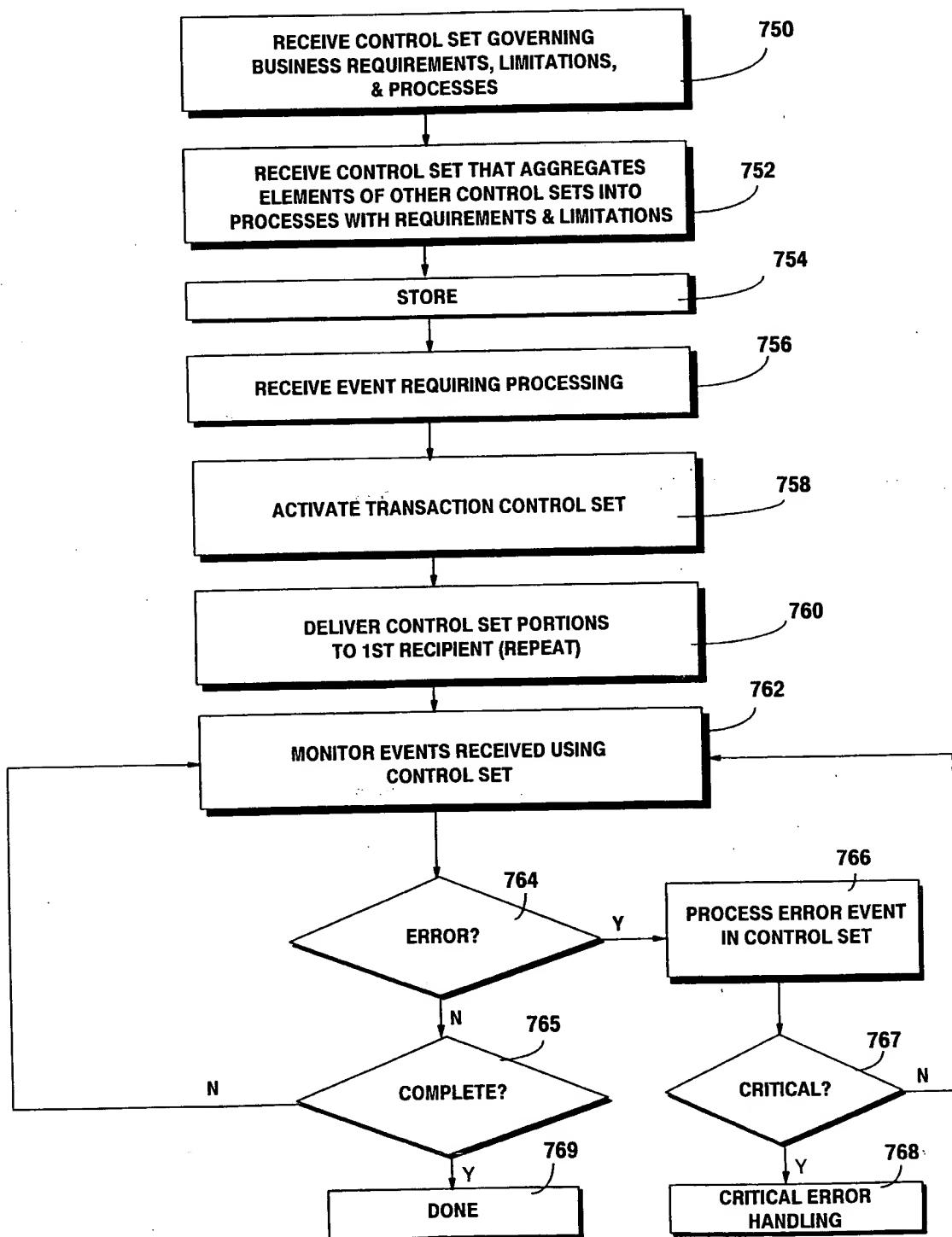


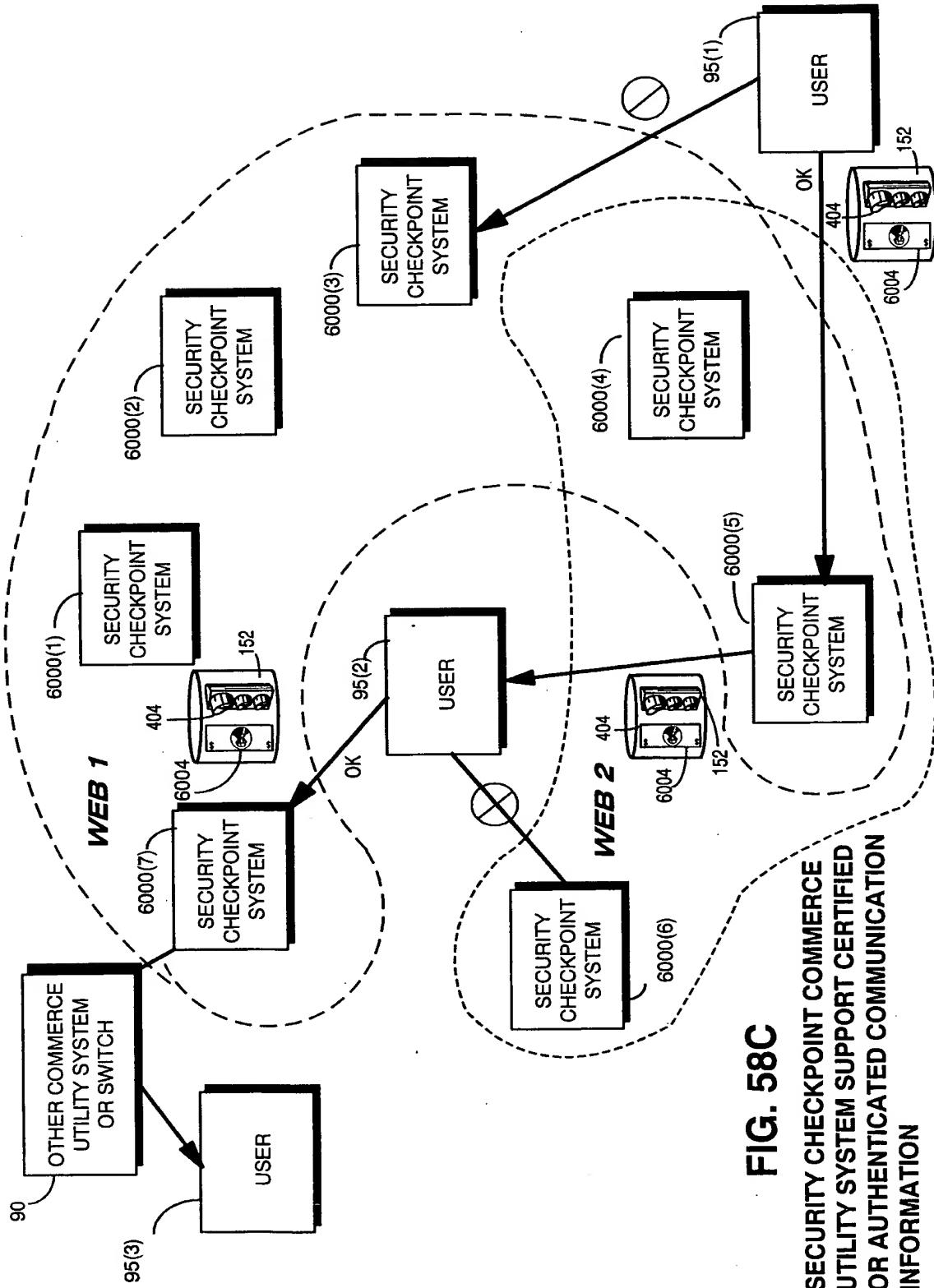
**FIG. 57**  
Example Transaction Authority Process  
Control and Automation

**FIG. 58A**  
Forming a Control  
Superset



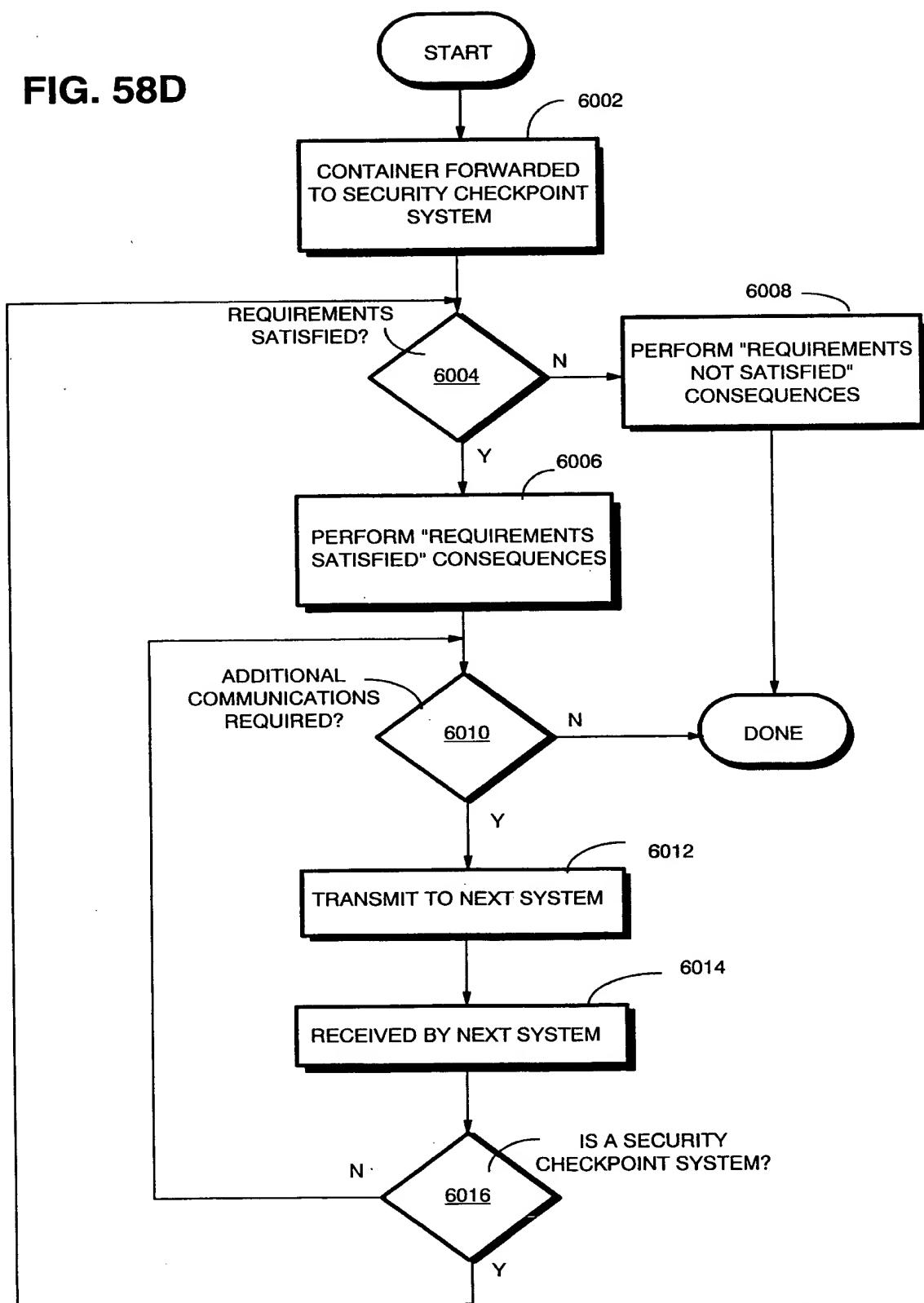
**FIG. 58B** Transaction Authority Example Steps

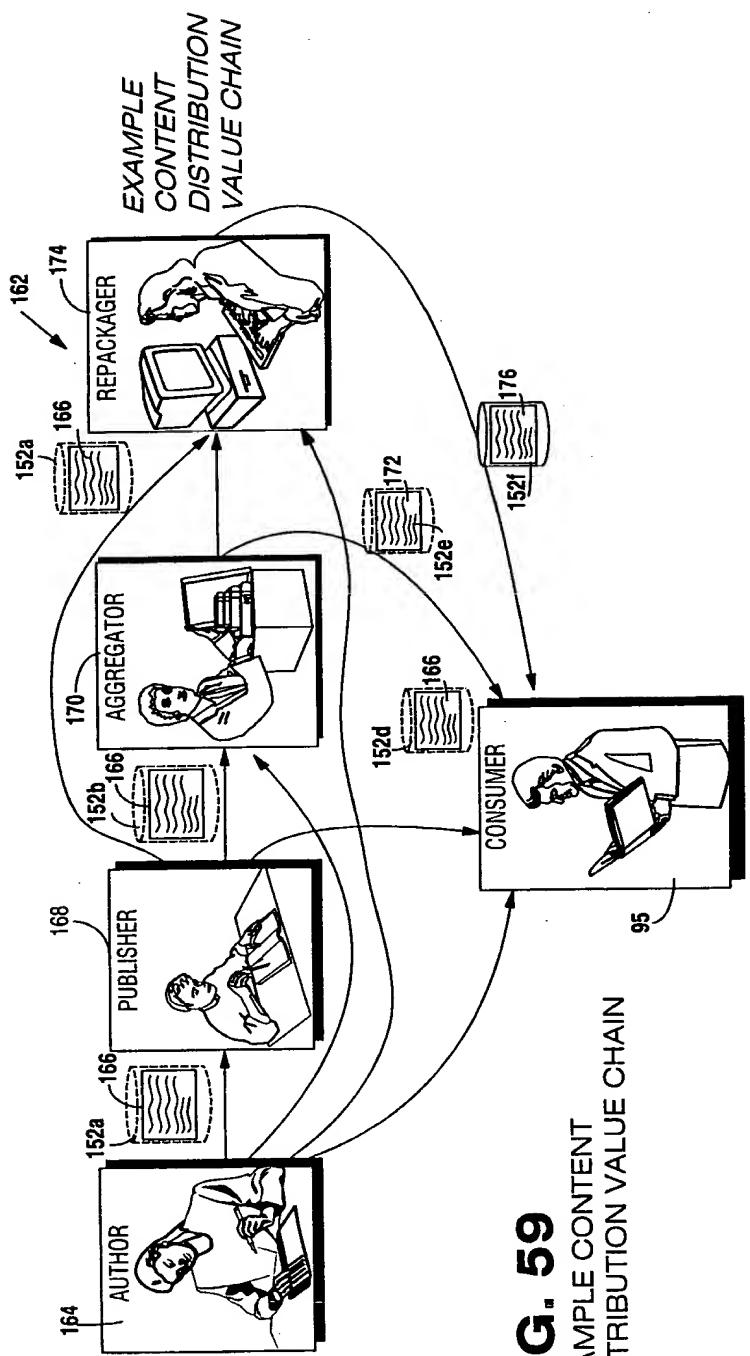




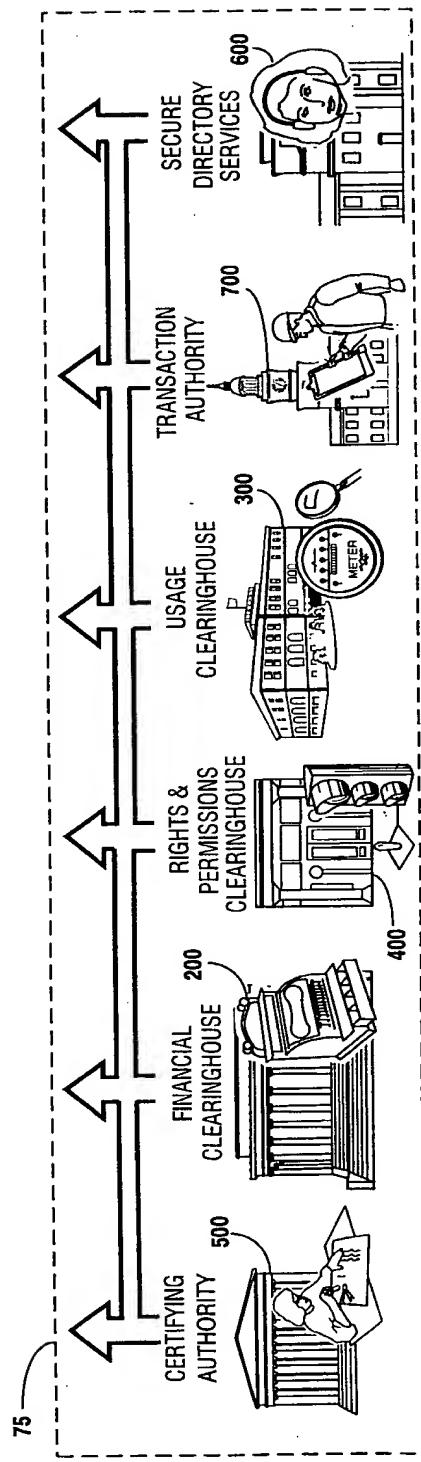
**FIG. 58C**  
**SECURITY CHECKPOINT COMMERCE  
 UTILITY SYSTEM SUPPORT CERTIFIED  
 OR AUTHENTICATED COMMUNICATION  
 INFORMATION**

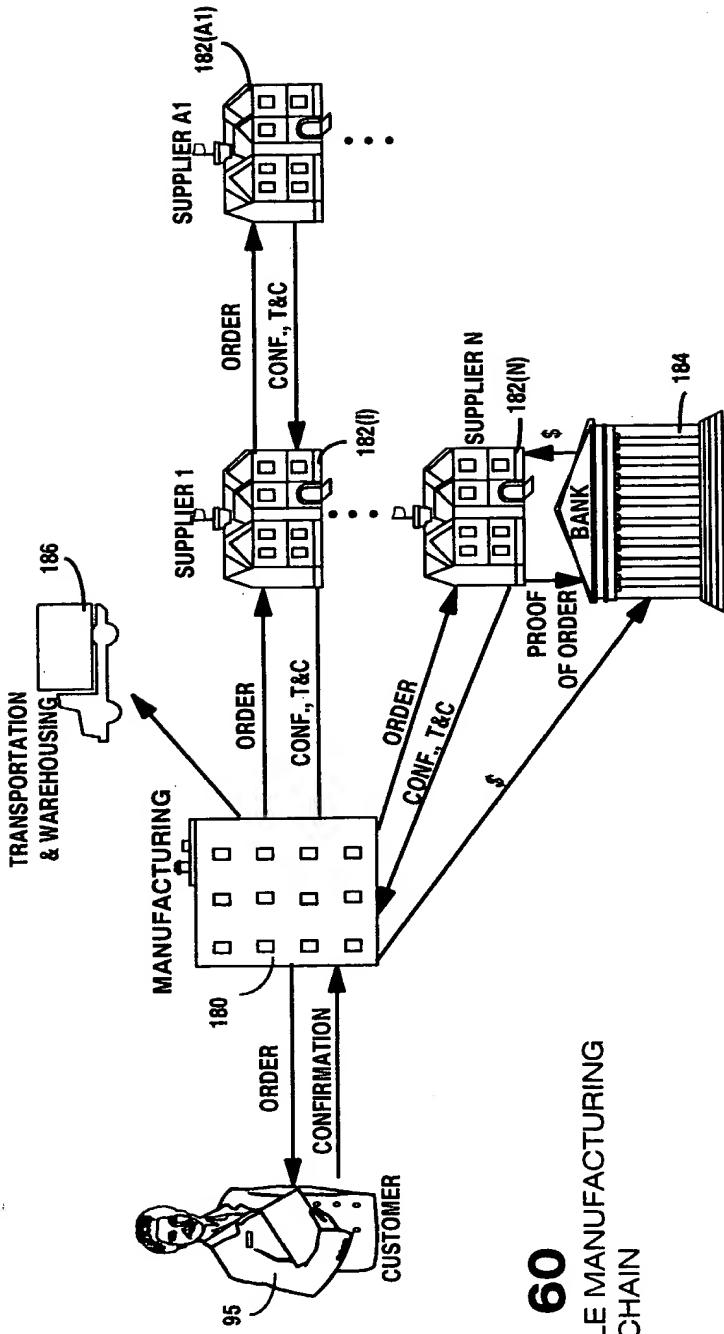
**FIG. 58D**



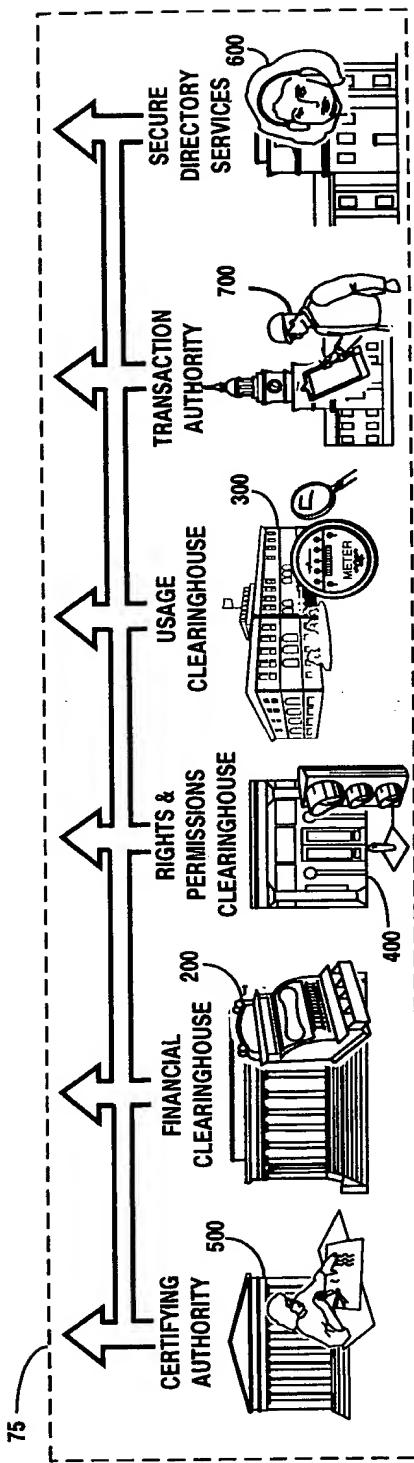


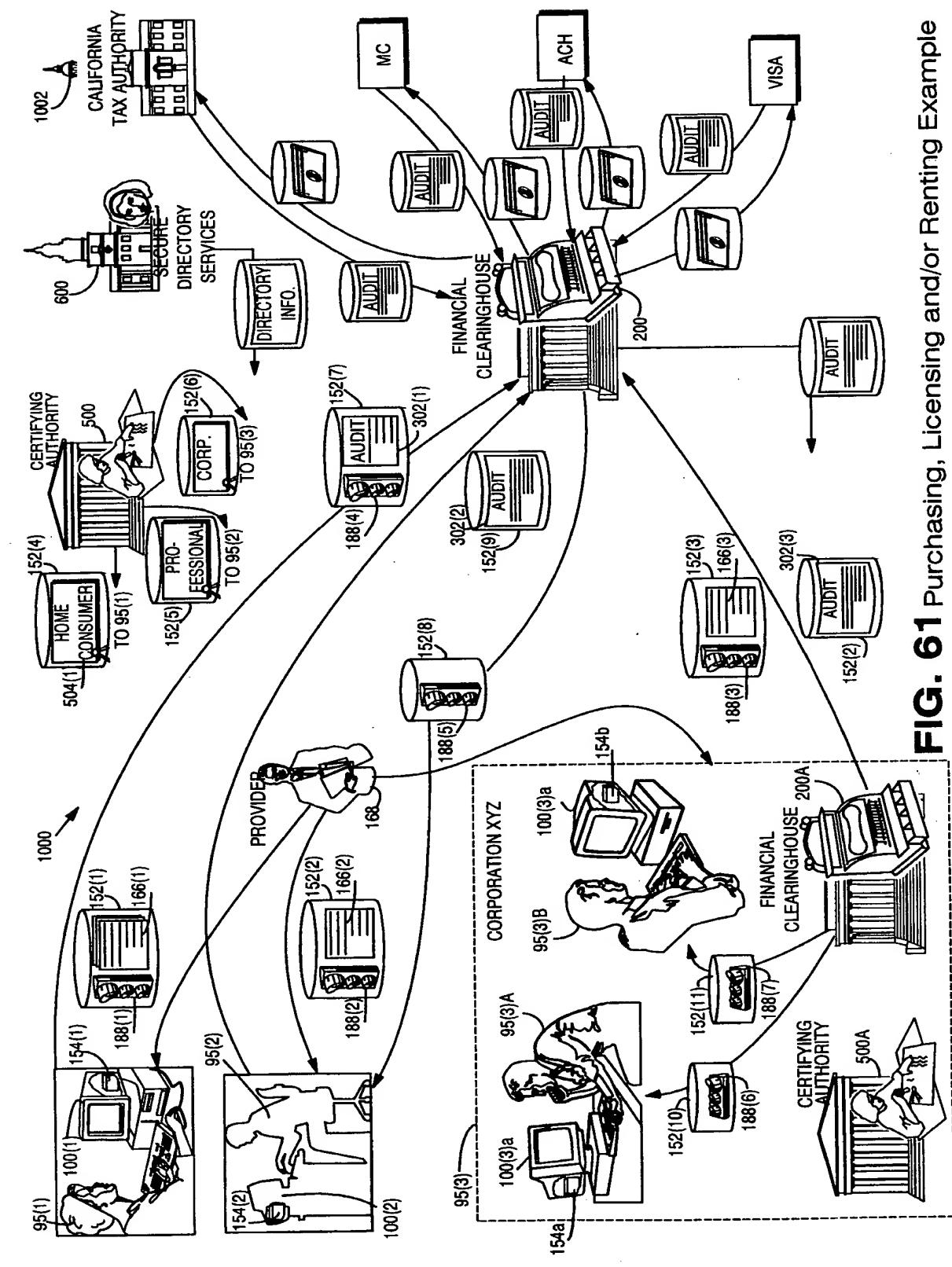
**FIG. 59**  
EXAMPLE CONTENT  
DISTRIBUTION VALUE CHAIN





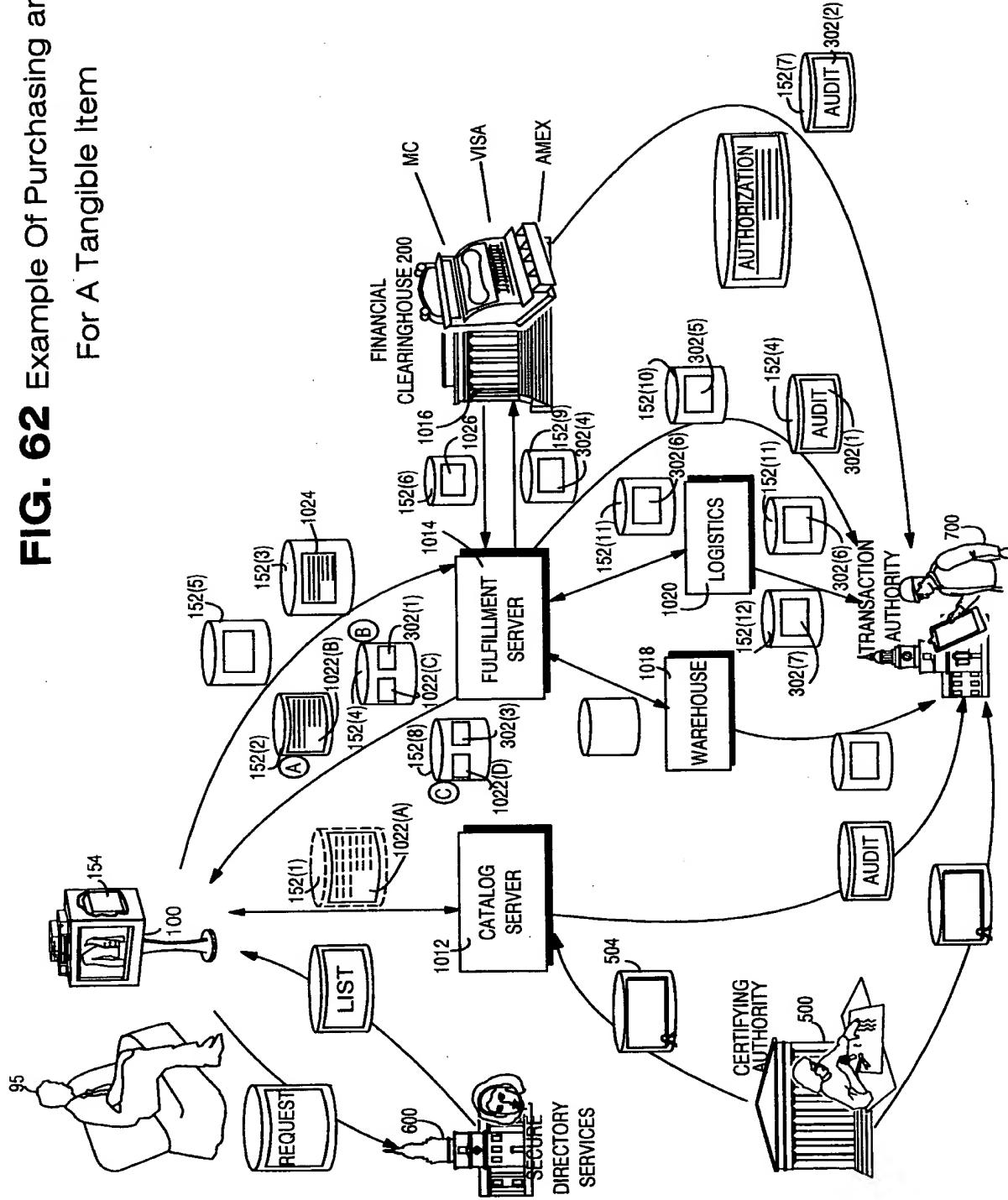
**FIG. 60**  
EXAMPLE MANUFACTURING  
VALUE CHAIN



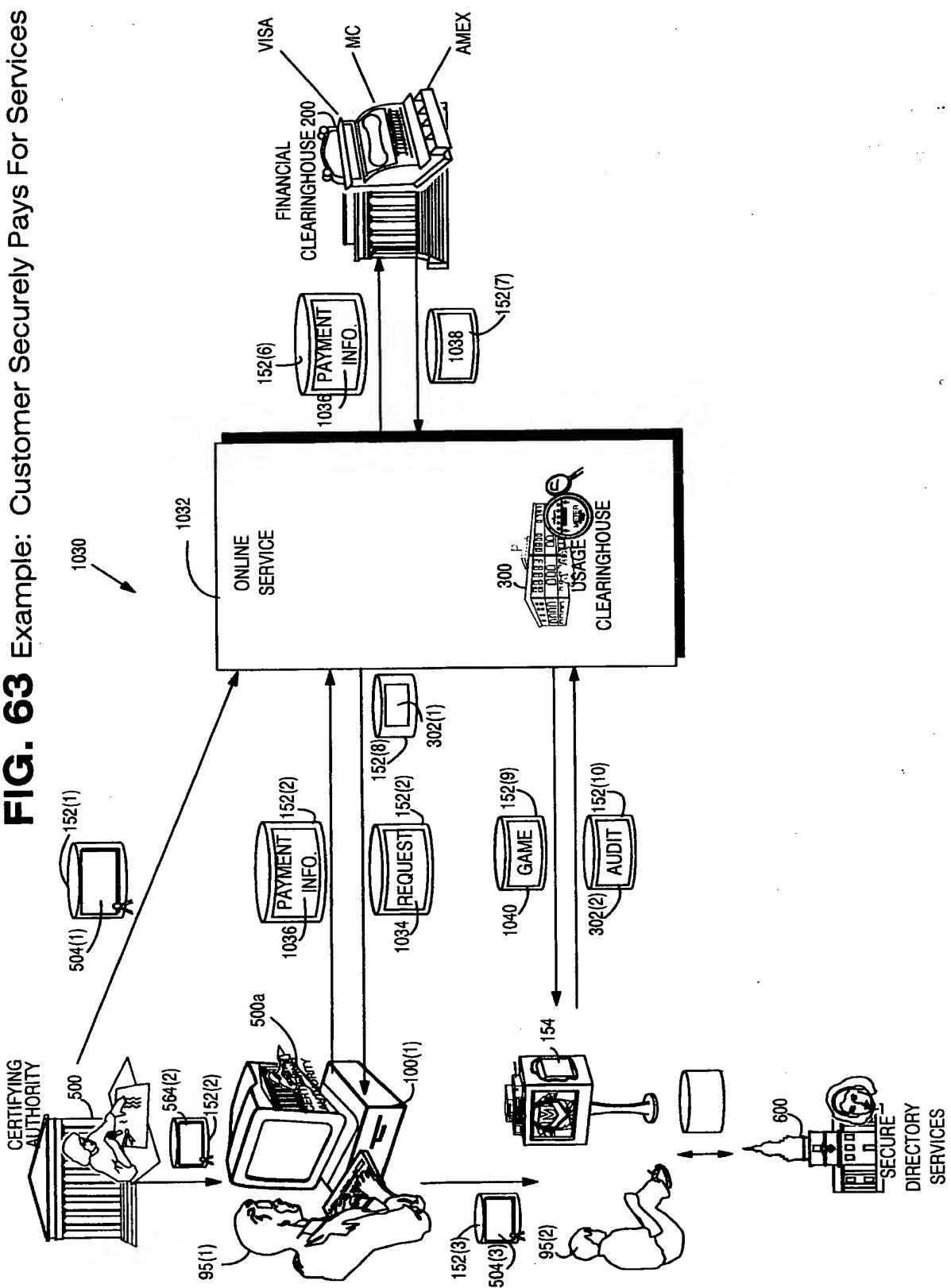


**FIG. 6.1** Purchasing, Licensing and/or Renting Example

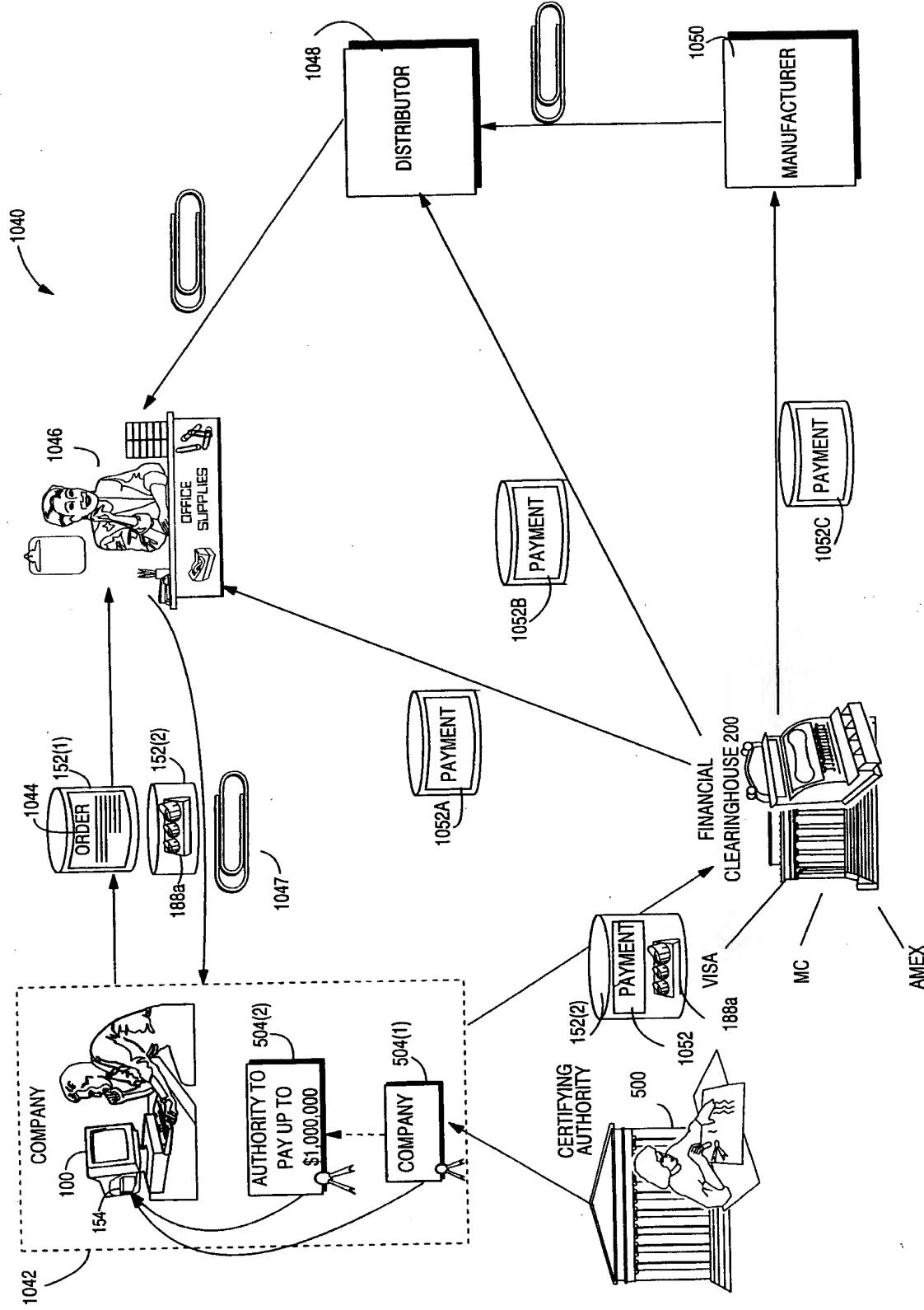
**FIG. 62** Example Of Purchasing and Paying  
For A Tangible Item

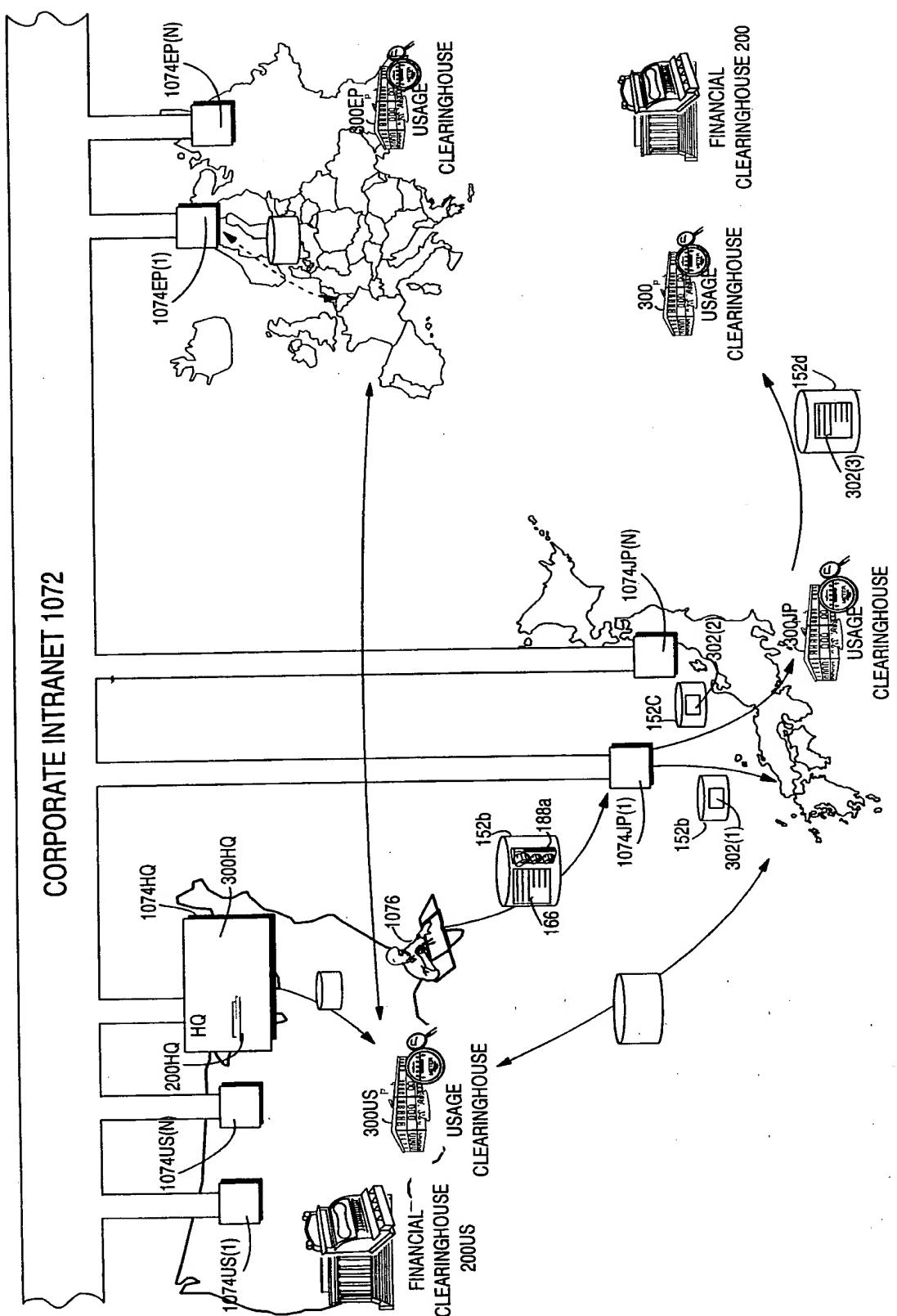


**FIG. 63** Example: Customer Securely Pays For Services

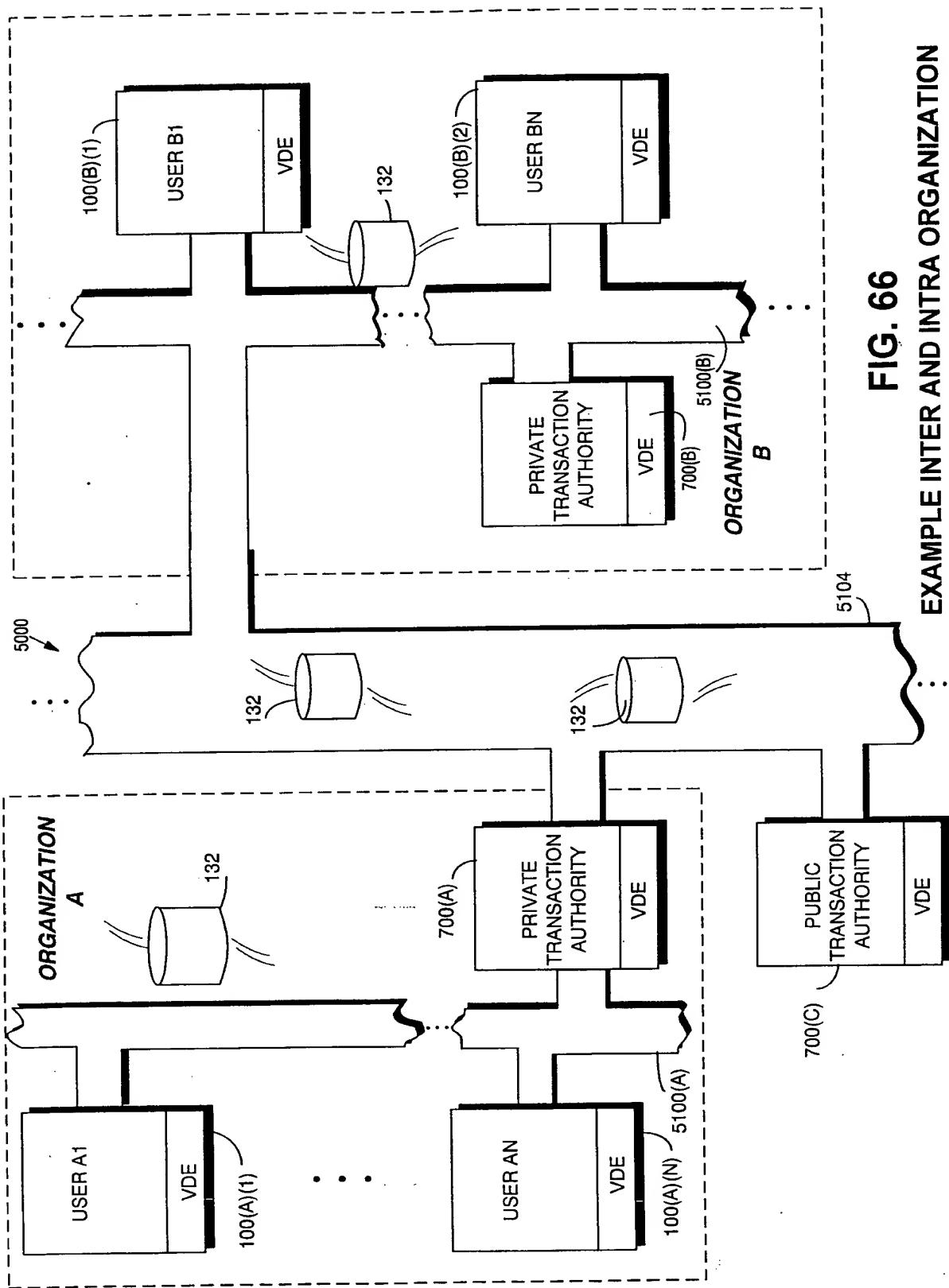


**FIG. 64** Example Value Chain Disaggregation For Purchase of Tangibles

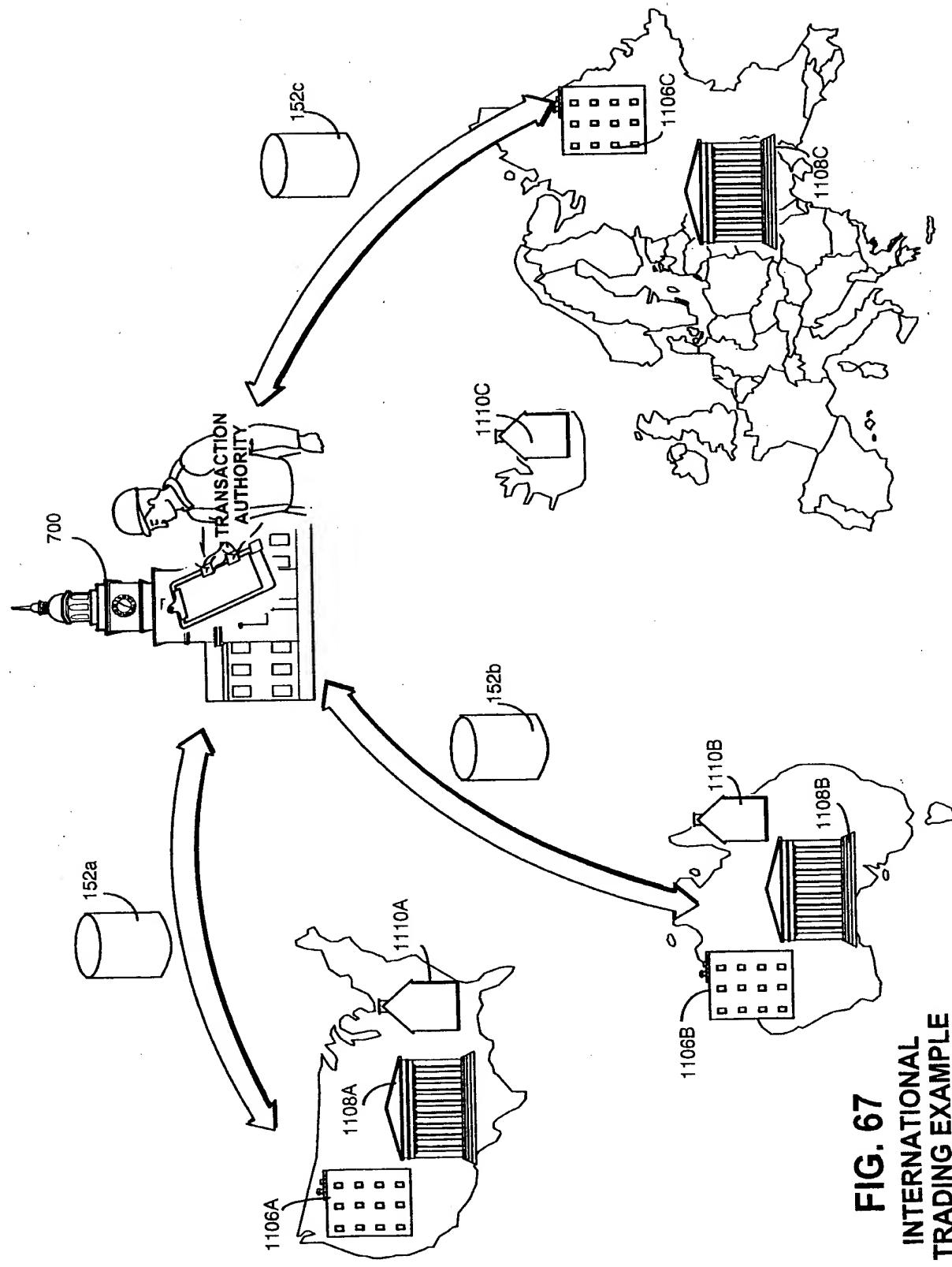




**FIG. 65** Cooperation Among Commerce Utility Systems Internal and External To An Organization



**FIG. 66**  
EXAMPLE INTER AND INTRA ORGANIZATION



**FIG. 67**  
INTERNATIONAL  
TRADING EXAMPLE